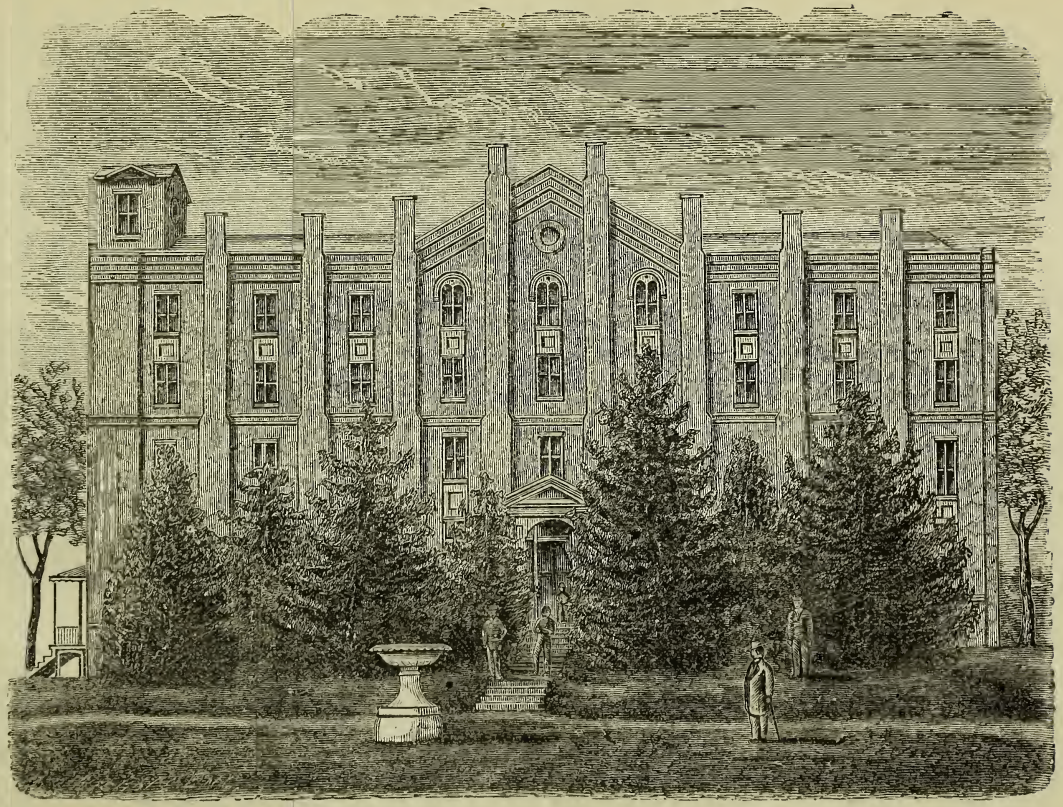

MARYLAND AGRICULTURAL COLLEGE.

THE

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For the Maryland Farmer.

History of the Maryland Agricultural College.

BY

J. D. WARFIELD, A. M.

Professor of English Literature.

On tne 6th of March, 1856, an act passed the Legislature of Maryland for organizing an Agricultural College, "which shall in addition to the usual course of scholastic learning particularly indoctrinate the youth of Maryland, theoretically and practically, in the arts and sciences which with good manners and morals, shall enable them to subdue the earth, and elevate the state to the lofty position, its advantages in soil, climate and the moral and mental capacities of its citizens entitles it to attain."

That act authorized nine commissioners viz:—Hon. James T. Earle, Charles B. Calvert, Dr. J. O. Wharton, Geo. W. Hughes, Ramsey McHenry N. B. Worthington, Walter W. W. Bowie, J. Carroll Walsh and A. Bowie Davis to complete its organization.

The first meeting was held, March 28th, 1856. All were present except, Messrs Davis and Walsh. Mr. Robert Bowie was appointed agent for subscription of stock. In September 1857, Mr. Bowie reported that he had collected the sum of $42,300. The minimum amount, $50,000 was made up by the commissioners, As $25,000 in cash had to be paid in, before organization could be possible, these commissioners were compelled to meet and adjourn four times before raising it. At a meeting called January 5th, 1858, Mr. Bowie reported $14,432.50 in cash, and $15,483.50 in notes. The balance were merely promises not yet fulfilled.—Messrs. Chas. B. Calvert, Jas. T. Earle and Dr. Wharton were appointed to make arrangements for converting sufficient notes into the required amount of cash. Successful arrangements were made with John S. Gittings Esq, of Chesapeake Bank of Baltimore. At that meeting, 1,229 shares at $25 each, were represented. Twenty-two of Maryland's foremost men were chosen trustees. The Board elected for five years organized next day, by selecting Chas. B. Calvert, President; N. B. Worthington, Secretary; Dr. J. O. Wharton, Register. Col. Charles Carroll of Howard county was made Chairman of a Committee upon location.

In January 1858, he reported fully and ably upon all the property offered except in Montgomery county, which Mr. Davis offered in person. Dr. Mercer of New Orleans having made a liberal donation, was added to the list of trustees. Mr W. W. Corcoran of Washington, was also nominated.

The stock was reduced at this time, from twenty five dollars to five dollars per share, under the impression that it could be more universally distributed throughout the state.

After balloting eight times, the "Rossburg" property of Mr. Chas. B. Calvert, containing 428 acres, was selected, and Messrs. Earle, Wharton and Worthington were appointed to purchase it. Eight thousand dollars in cash, and 880 shares of stock at $5 per share, were agreed upon. August 24th 1858. the corner stone was laid in the presence of nine gentlemen of the Board of Trustees.

The corner stone was of granite, with a square opening, in which was deposited a covered box containing Maryland papers; the Act of Incorporation; samples of all the grains of Maryland, &c. The contract for carpenters' work was awarded to Mr. Enos Chapman of Philadelphia; the brick work, to Mr. Chas Ogle; the slating, to Mr. Joseph A. Griffith; the plastering, to Mr. M. W. Connolly.

Mr. Otho Williams of Baltimore, having been made a trustee, reported an additional gift of $2500 from Dr. Mercer of New Orleans; Dr. George R. Dennis of Somerset county, gave a valuable cabinet of Minerals; Hon. John Merryman of Hayfields, then, and now, trustee, donated some valuable stock.

July 21st 1859, Messrs. Mitchell, Earle and McHenry of the committee upon organization, reported for the chair of agriculture, Dr. Geo. C. Schaeffer; Dr. Battista Lorino, Prof. of Languages; H. Dorsey Gough, Prof. of Mathematics; Mr. Benjamin Hallowell, late of Montgomery county was afterwards induced to accept the Presidency with the chair of Mental Philosophy and English Literature.

All available funds being exhausted before the completion of the building. Col. Carroll of Howard, proposed to raise $10.000 upon mortgage, which was amended to a tax of $200 each upon the Trustees.

This was sufficient to carry on the work and in Oct. 1859, Dr. Wharton, Register announced the completion in these words: "Long may it stand as a noble monument to the wisdom of its projectors." President Hallowell, on account of sickness, was able to attend but one or two meetings of the Faculty. The work required of students was mostly constructive. There were no experiments other than the trial of different fertilizers. In Dec. 1859, President Hallowell resigned; his resignation was accepted with regrets, and he was made an honorary member. Mr. Chas. B. Calvert, Pres. of the Board, was elected President of the College. In April following, Rev. Dr. Van BoKelyn was asked to take charge, but his terms were not accepted; Rev. G. W. Scott, of Pennsylvania, was then chosen. Prof. Haldeman was elected to the chair of Agriculture, then held by Prof. Schaeffer and Prof. Shoemaker, to the chair held by Prof. Gough. In June 1860, President Scott resigned on account of the supreme authority then held by the Register, and Mr. J. M. Colby was elected to succeed. Prof. Montgomery Johns now became a member of the Faculty; Dec. 17th, Prof. Hawes was added; and, in January 1861 Prof. Cheneworth took the place of Prof. Shoemaker. In August 1861, there was no money to pay salaries. In this dark hour, Mr. Chas. B. Calvert generously offered his own checks to defray necessary expenses, and Register Wharton was willing to wait for his salary to keep the College in working order.

At the opening of the next session, we find Mr. Henry Onderdonk at the helm. The debt was now $20,000; the number of students, forty seven. A committee, of which Hon. John Merryman was chairman, advised a mortgage upon the property to relieve the burden of debt. President Onderdonk needed help in the work of the College, and having no money to pay salaries, Mr. N. B. Worthington was requested to act as Prof. of English Literature and Philosophy. Mr. Chas. B. Calvert moved that, hereafter, the State's appropriation of $6,000 be reserved for salaries. Trustees now becoming tired of their burden, began to drop off to such an extent, that it was resolved, to declare vacant the office of trustee for absence at three consecutive meetings. The Register, on account of drought, again reported failures in most of the crops and experiments.

In Dec. 1863, Prof. Higgins was elected to the chair of Chemistry. In May 13th 1864, a special meeting was called to announce the death of the lamented Chas. B Calvert, which was done in very appropriate words by President Onderdonk. During the Spring, Burnside's Corps quartered upon the grounds. Fences were pulled down; young timber destroyed; fruit trees demolished; hay and other provender seized, for which no payments have yet been received, though untiring efforts have been made, and still are making, in that direction. In November 1864, Prof. Worthington was requested to act as President, and Mr. J. A. H. Blackiston Sec'ty. The other members were Prof. Lorino, Prof. Leakin, and Dr. Johns. Students numbered forty-five.

In June 1865, steps were taken to sell the college property to the State, in order to accept the permanent endowment, lately passed by the Government, for encouraging military tactics in the Agricultural and Mechanical Colleges. This proposal was partially accepted by the purchase of one half interest, for which $45,000 were paid. The land-scrip was afterwards sold at 54 cents, realizing an investment which yearly yields $6,000.

In May 1866, the College was closed for want of the funds which were not yet made available. Mr. Chas B. Calvert, Jr, then a member of the Board of Trustees, in Nov. 1866, nominated Professor Worthington, Register, with a view to opening in Jan. 1867. At a meeting Dec. 10th, 1866, Gen. Custis Lee was elected President, with Professors Worthington, Higgins, Lorino, and Leakin to aid him, Gen. Lee not accepting, Mr. C. L. C. Minor, now President of the Va. Agricultural College, was elected to the position. The question of admitting a limited number of practical laborers as students, whose work should be part compensation, was discussed. In March 1868, military instruction was authorized. The policy of the trustees in regard to salaries, caused the resignation of President Minor. Rev. Bishop Pinkney of the Board, also resigned soon after.

Admiral Franklin Buchanan was chosen to succeed. He called the Faculty together Jan. 14th 1869, for reorganization. The only other change

being the addition of Mr. Handy,as military instruc tor. A difficulty with one of the professors, having been carried to the Board, resulted in the resignation of President Buchanan.

Sept. 21st 1869, Dr. Samuel Register was called to the presidency with Dr. Antisell, at first, Prof. of Chemistry, and afterwards, Prof. Alfred Herbert; Prof. Worthington was paid $500 extra, to fill the chair of Agriculture, in connection with his own.

Dr. Eli J. Henkle now our representative in Congress, was elected to the chair of Physiology. Dr Register made the addition of stabling, sheds, gymnasium, work house and other necessary buildings. The number of students reached one hundred and thirty-six.

The language of Dr. Register is, "while instruction in practical agriculture is given to every class, it is not with any systematic plan. Our practice has been to call the students to the field or garden just as the necessities of the work required." In May 1873, Hon. A. Bowie Davis made a report upon the working of the College, then under Dr. Register. The report ended by requesting the Faculty to resign.

At the next meeting, Genl. Samuel Jones was elected President; Prof. Worthington, Eng. Lit.; Prof. Douglas Williams, Chemistry; Prof. Hobart Hutton, Agriculture; Prof. Leakin, Mathematics; Prof. Lorino, Languages; Major Soper, Military Instructor and Register.

In May 1873, Mr. Ezra Whitman, of the Maryland Farmer, and Mr. Arthur Gorman, were added to the Board. Upon the resignation of Prof. Leakin, Prof. Wm. H. Parker was invited to the chair of Mathematics.

Considerable discussion was occasioned by the presence of Dr. Kepler and Mr.Witmer,who claimed to vote as members of the State Board Attorney Gen. Jones decided that they were entitled to vote. At the next meeting,General Hardcastle was elected in the place of Mr. A. Bowie Davis. During General Jone's administration, the President's cottage was improved at a cost of $2,500.

At the July meeting 1875, President Wm. H. Parker was elected, with power to nominate a faculty. The chair of English Literature was then held by Professor Worthington. Col. T. M. Jones was called to the chair of Agriculture, Prof R. E. Nelson, to the chair of Physics, Prof. Clarkson, Chemistry; Prof. Snyder, Assistant Professor mathematics and Military Instructor. The debt of was about $13,000. Dr. Mercer presented a portrait of Chas. Carroll, of Carrollton, and one thousand dollars.

Mr. J. Howard McHenry,having resigned as Trustee, Judge Wm. H. Tuck, of Annapolis was elected to the vacancy. Gov. Carroll was made President of the Board. In June of the next year, the number of students had increased to 77. Prof. J. D. Warfield, was, in 1876, elected to the chair of English Literature; Professor Wm. D. Morgan was called to the chair of Chemistry and Professor Von Brockdorff of the Berlin University, to the chair of Languages.

At the April meeting of1877, Mr. Wm. B. Sands succeeded Mr. Charles B. Calvert. In June following, Mr. Sands offered a series of resolutions looking to the reorganization of the college. These resolutions were not supported by the Board, and at a special meeting called by a few stockholders were defeated by a two-thirds vote. At that meeting, Mr. J. Howard McHenry was elected in the place of Mr Sands. Upon the resignation of Judge Tuck, Hon. John Merryman, of Hayfields, and President of the Maryland State Agricultural Society was called to take his place. Gen'l Hardcastle having been elected to the Legislature, resigned in favor of Mr. Carroll Goldsborough, of Talbot, and he was accordingly elected. Since the organization of the college, twelve hundred and two students have registered.

The work of the present administration is part and parcel of its history; under it, the number of students has been increased to eighty-one; two new cottages have been erected and all other buildings thoroughly repaired; fruit and shade trees have been planted; roads gravelled; lands drained, boned and limed; implements, machinery and harness purchased.

Students under the instruction of the Professor of Agriculture and the Superintendent of the Farm, have acquired practical knowledge of the work on the farm. Theoretical agriculture has been daily taught in lecture room and laboratory. Lectures upon agriculture and its kindred subjects, have been delivered to the whole body of students. A telephone has been erected,and much new apparatus purchased; finally, *the entire debt has been paid.*

The Maryland Agricultural College begun under difficulties, carried on in gloom, is now open to a career of usefulness.

All attempts to clog its progress have failed. In the midst of its sorest trials, Governor Carroll has stood its unflinching advocate, and, one day, his portrait will hang upon its walls, honored, as is that of Charles Carroll of Carrollton.

Its Trustees, who clung to it when doubt, debt and despondency had well nigh won, are still endorsed by the people. Their names are already on the recorded list of those made memorable by their liberality, enlightenment and perseverance. Whilst cold darts of unfriendly criticism have been falling around his head, President Parker has calmly stood at his post, hopeful, determined, and, by that earnestness which stamps the character of the courteous gentlemen, that he is, has succeeded in presenting to our State, its institution untrammelled,—saved.

At last, the trial is ended; success is won. Standing firmly upon its liberal policy, it is ready to meet the demands of a growing age. The people have written upon its walls,—*Faction shall no longer rule.*

Manurial Values of Fodder Materials.

From the careful and elaborate experiment made by Sam'l. L. Dana it appears that an average cow, kept on a daily ration of twenty four pounds of hay and 15½ pounds of potatoes. will yield, in addition to her liquid evacuations, over 31,000 lbs, of dung per year containing 189 lbs. of ammonia which, with other included chemical elements, amount in value to over $40. By the same authority it also appears that the liquid manure amounts to over 7,000 lbs. a year, and surpasses the solid dung in value in the ratio of 2 to 1. This makes the total value of the manure more than equal to the entire cost of feeding. He further states that "100 lbs. of cattle urine afford about 8 lbs. of the most powerful salts ever used by farmers." This is equivalent to about 600 lbs, a year of the salts referred to, for each animal.

It is estimated by Prof. Johnson that a ton of clover contains potash, phosphoric acid and nitrogen sufficient to make it worth $17.57 for manure; while a ton of bran or of peas is worth, by the same standard, over $22. And some other feeds have a still higher manurial value. In the above experiment of Mr. Dana the daily ration of hay was equivalent to 4¼ tons a year. Now, if this ration had been clover instead of hay the manurial value per year would have been over $72, according to Prof. Johnson. These conclusions, resulting as they do from both practical and chemical investigation, are further confirmed by the experience of successful farmers.

Josiah Quincy, Jr., has found that a good cow, when kept on the soiling system, yields 3½ cords of solid dung per annum, which, by the addition of muck, may be more than doubled, both in quantity and value, and that the liquid manure when absorbed with muck is worth still more than the solid, making an aggregate of more than fifteen cords, worth from $5 to $8 a cord. And further it appears that the total manure from each cow, when thus treated, is equivalent on a yearly average to the value of the milk.

Joseph Harris who probably knows as much about manure and more about pigs than most farmers, has estimated that he got 41¾ cts., worth of manure per week from the pigs that were fed at a cost of 37½ cts. a week, thus showing that the value of the manure covered the whole cost of feeding, and left a net margin of profits besides.—*Conrad Wilson.*

WEST RIVER GRANGE NO. 15.

Rotation of Crops, and a Radical Change in the System of Farming etc.

This flourishing Grange, at a late meeting appointed a committee to report upon the best system of farming adapted to the present condition of affairs existing in Southern Maryland, and such rotation of corps as seemed the best under all circumstances as existing—This committee made the following very judicious report, which the Grange ordered to be sent to the MARYLAND FARMER for publication, that the public might have the benefit of their views.

We duly appreciate this curtesy and owe many thanks to their excellent lecturer Mr. Cheston, for the kind manner in which he presented to us the Report. It is highly gratifying to find that the views we advocated in a premium essay written over a quarter century ago, for the consideration, particularly of the members of the Prince George's County Agricultural Society, at a time when things in general, and farming especially, was at as low an ebb as at present, are now adopted by a committee of such an intelligent body of farmers as the one appointed by the West River Grange. The essay was written too, in the days of slavery, and for that reason perhaps was not heeded, but had it been then adopted, we feel sure, the planters of to day would be in a far better condition than they are. The Committee have given far better reasons for this change than were assigned by the writer of the Essay—Among them, is the advocacy of stock raising—horses in particular. We confess it is pleasant to see our bantlings lost sight of for twenty-five years, return to us, honored by the approval of highly intellectual and thoughtful men. We commend therefore this Report to the serious consideration of our readers.

"Your committee after careful consideration, and due reflection would most respectfully report to the Grange, that in their opinion, a Radical and speedy change in our system of farming is called for, not only to furnish an income for the necessary wants of the family, but also to protect the capital from a gradual but sure depreciation in value. Your committee are fully convinced that the present system of working our lands—whether it be the three or four field system has been pursued far too long, and that the force of the warning given us twenty-five years ago, is now but too plainly seen and felt, namely that our system of working the soil was a violation of fixed laws and principles in agriculture, and that all such violations would sooner or later, bring about its own punishment in theshape of a loss of fertile power in the soil. Your Committee are persuaded that the punishment is even now at our doors. Your Committee fully recognizing the present condition of affairs, have asked themselves with much solicitude what can be done to relieve us from the result of our past course?—To this question your Committee candidly answer. We must return one and all to the A, B, C, of farming. Work nothing but what we can feed, whether it be Man, Horse, Ox, or Land; to follow out this principle, your Committee see nothing left, but to abandon at once our large plough-acreage system, and permit the land to remain in grass for a longer time, so that it may regain its strength, and bring forth a remunerative yield. Your Committee are convinced' that there can be no real improvement of the condition of our lands, until our fields are subdivided;they would therefore recommend a division of the farm into six fields—Fallow for wheat, follow with corn and tobacco; then wheat with grass seed. By this system say you have 180 acres of arable land, you will have two fields in wheat—one in Corn and Tobacco, and three in grass. This system your Committee is well aware cuts down your Tobacco crops, which your Committee deems desirable irrespective of all present price influences, but rather from the conviction, that this crop can be no longer grown by us on a large scale with profit. Your Committee are well aware that this system means for a time a contraction in the gross money receipts of the farm, and looks as if our profits were to be much cut down, owing to the small amount of land brought into cultivation. But the Committee would lay before you the following points in defense of the proposed plan—1st by pursuing this system, we cut down our yearly farm expenses, exclusive of taxes, 40 per ct.
2nd. That the land by longer rest, grass food, and better manuring, will yeild 33 per cent more per acre. 3d That old turf being furnished, grazing for market, can be profitably carried on.

4th. That ample green and dry food is raised for farm stock, thereby preventing deterioration, giving ample opportunity to raise sufficient for home consumption, instead of sending thousands of dollars annually away, for the purchase of Horses alone.

5th Your Committee was also instructed to take the labor question into consideration, and would report—that in their judgment, the proposed system will tend greatly to the improvement of your labor, by reducing the demand. Thus placing the farmer upon a more equal footing with the laborer giving him an opportunity to be more particular in his selection, and better able to establish good and wholesome rules.

WORK ON THE FARM FOR APRIL.

The weather this year has been so unexceptionably fine that we must suppose spring work has advanced accordingly, and our farmers are ready to begin active farm operations with this *opening* month of the year.

We presume all the grass seeds and oats have been sown, if not however, they should be got in the ground at the very earliest moment—Grass seeds sown among grain should be sown after the grain has been well harrowed, and then rolled There are machines which do all the work at one operation, with two horses and a small boy to drive. It is said to be cheap,does the work effectually and saves more than half the labor, requiring no skill in the sowing, indeed dispensing with the manual sower.

CORN,

It need hardly be said that corn requires a deep rich soil and through cultivation from a few days after it appears above ground, until it begins to show its tassells. It is a great gourmand, never is satisfied with the amount of food offered, because its roots extend to an incredible extent where they find good food, but stalks well repay for all the plant food it receives; therefore, we would say, make your corn ground rich and add such fertilizers as science and experience tell you will repay you for the outlay—Plant early, and never let a sprig of grass grow in the corn field, until it begins to tassel. We refer you to an excellent lecture of Dr. Sturtevant on the subject of Indian corn, in the columns of the present nnmber, and ask your attention to it.

TOBACCO.

We feel sure there are an abundance of plants so far—Keep the beds clean of weeds and grass. Top dress with Tobacco dust mixed with sifted dry earth or wood's earth and a little plaster; or use soot, slacked ashes and scrapings of barn yard in equal portions—Thoroughly decomposed and dried horse manure is excellent also. Plant but a limited crop,make it fiue and kept free from worms and you will realize from 2 acres more money nett, next year than you could do under the old system from 6 acres—See what land. toil, and expense you save. Concentrate your manure on a small area. It will be a success for you—Tobacco planters who make large crops have to work many hands all the year at great expense, and in Maryland are bound to have their crops inspected *within the limits of*

Baltimore—a great *unconstitutional outrage on the planter*–and therefore he gets only from $1 to $4 a hundred pounds owing partly to the unpopularity of State Inspection in Balto. City, and the poor quality of the article, hence large growers of the weed are annually out of pocket. While this sta e of things exist, every man should curtail his crop and make, what he produces. of the best quality and after inspection in Baltimore, ship it to New York, for re-inspection and sale—We reiterate what we have said for years; plant less, make the land rich as possible, use fertilizers rich in potash, prepare the land well,cultivate judiciously, top low, and do not let a leaf have a worm hole.

STOCK OF ALL KINDS.

See that the milch cows that are fresh, have generous food, and slops—Sows that have pigs should be well fed and have swill in plenty, with a pen inwhich the pigs can get their supply of sour milk or meal gruel as often as they, may want it. All working beasts ought to have extra attention with the best of food and in abundance. This is a season when all their energies will be tried to their utmost.

PASTURES.

Great mistakes are made generally by turning stock on young clover or other grasses, intended for pasturage during the year, before it has got high enough. It should not be pastured until almost in bloom, When clover or other grasses are pastured early, it checks the growth, and lessens the vigor of the roots, so that the plants fail rapidly when dry weather sets in, and the pastures fail. By turning the stock on grass too early, the grass crop is detrimental rather than beneficial to the increase of fertility in the soil. Keep the stock from grazing young clover or other grasses the first year as long as possible.

POTATOES AND ROOT CROPS.

Plant the Potato crop as early as possible, for the many reasons heretofore given in our Monthly Calendars for farm work.

Prepare the land intended for Sugar Beets, Mangels, Carrots, and Parsnips—Be sure and plant some of each sort, or largely of either one. Make the land rich, plow deep and get in fine tilth, drill in the seed with a good hand drill, or substitute a bottle and cork with a quill. Plant the seed as early as you can. Get the ground for Ruta Bagas in good order now, so it will be ready about the 20th, of May to be sown Roots at the present day are considered sine qua non on all well-managed farms where stock are bred, or fattened, and milch cows are kept.

TREES AND ORCHARDS.

Set out all the fruit, ornamental and forest trees you possibly can—The latter had better have been planted last month, but can with proper pains taken, be safely planted early this month—The lowest can be set out all the month. Trim up the cedars along the fence rows where the birds have placed the berries, setting us a good example in the propagaity.

GARDEN WORK FOR APRIL.

This month will employ all the time a gardener has at his command, and he has to be very vigilant and energetic if he wishes to secure the full fruits of his labors in an abundant yeild of vegetables and small fruits from his limited fields—First and cheif requisites are, heavy manuring and large use of such fertilizers as are chiefly servicesable to the varied sorts of vegetables, and through preparation of the ground and cultivation afterwards.

Beets, Carrots, Parsnips, Onions,—both setts and seeds—Beans, Peas, the different sorts of salads. Raddish, Cabbage, Brocoli, Celery, Spinach, Cauliflower. Corn Potatoes, should all be planted or sown as early and possible, and toward the close of the month, Cucumbers and Symblins or bush squash may be planted if the wheather and ground be suitable, as may Lima and other pole beans.

All vegetables that have been kept over to produce seeds, shall now be set out to bear seeds, and such sorts should be set as far away from other varieties as is possible, as many kinds of seeds will hyridize if planted near each other. Small fruits and grapes should receive attention, such as a second working of the grouud, tying up those that require it, mulching, pruning where necessary ect.

It is presumed that the Tomatoes, early Cabbage, Peppers and Egg plant are growing finely in the hot bed and that radishes and lettuce are plenty in the cold frames, the radishes fit for use and the lettuce heading up well.

As it is well to try sometimes, seeds of new varieties of vegetables, for they are constantly improving under the sagacious skill of our enlightened Horticulturists, we would mention a few of the latest introduced by persons of reputation for veracity and integrity–The Beauty of Hebron Potatoe "by Messrs Thorburn N. Y., the Impd Egyptain corn by Mr. S. N. Hyde of Boothbey Hill,Harford Co. Md; also his superb, golden Trophey Tomato—*Of these we speak from personal knowledge*—The "Acme" Tomato and American Pea are strongly testified to by Messrs. Bliss & Son of N. Y.. Mr. Dreer of Philadelphia has an important Lima Bean, generally admitted to have some distinctive

features of decided advantage over the largest sized old Limas such as early maturity, prolificness extra fine quality, more Sacharine matter, and shelling one third more beans to the pole than the largest Lima. The pods are filled with large beans that form one against another like peas, filling the whole pod, and hence so much easier to shell Besides these there are many other new sorts of vegetables named and highly recommended in the catalogues that are issued by Seedsmen, which are well worth trying. There are also many new and labor saving tools brought out lately for the cultivation of plants and other things in the garden. that should be had by all who wish to do better work in shorter time and with much less labor.

Strawberry beds—should be raked off, the ground stirred with the hoe or rake, and mulched with straw, Tobacco stalks or corn stalks, to keep down grass and keep the ground moist—If the ground is not rich enough. well rotted manure ought to be put around the plants. It is a good time to set out beds of some new varieties, such as the "Great American," "Monarch of the West" and others; but do not fail to keep up your supply of the old sorts,— Wilson's Albany, Triumph de Gand and Filmore.

Asparagus Beds:—Rake off the litter, fork in the fine manure, and give a dressing of salt. *Grapes:*— These should have been pruned, worked about and tied to the stakes or ihllises last month–mulch them with coal ashes two or three inches deep and for some distance around the vine. If you have not a plentiful supply of this wholesome and delightful fruit secure at once a number of Concord, Delaware and Catawba vines, with a specimen of any other sorts that you may fancy—Some of Rogers' Hybrid grapes are well worth cultivating.

Currants and Gooseberries: See that you have an abundance of these; Versailles and white Grape are the best red and white Currants, and black Naples for black. The Gooseberries which give most satisfaction are the two leading American kinds. Avoid the English sorts; they mildew in our country. *Blackberries:*—Do not forget to set out a patch of Kittatinny blackberries.

Raspberry;—Plant largely of these delicious berries. the best are Philadelphia, Antwerp and Brandywine, for red or purple sorts, and Miami or Mammoth cluster, the best Black-cap.

A Seed Drill:—Whoever has a garden of half an acre or more should possess a good Seed Drill, for it is a great saving of time and labor. They are made now, so that they can be convertible into hand plows and hand cultivators—The same implement easily changed to sow, to plow and cultivate.

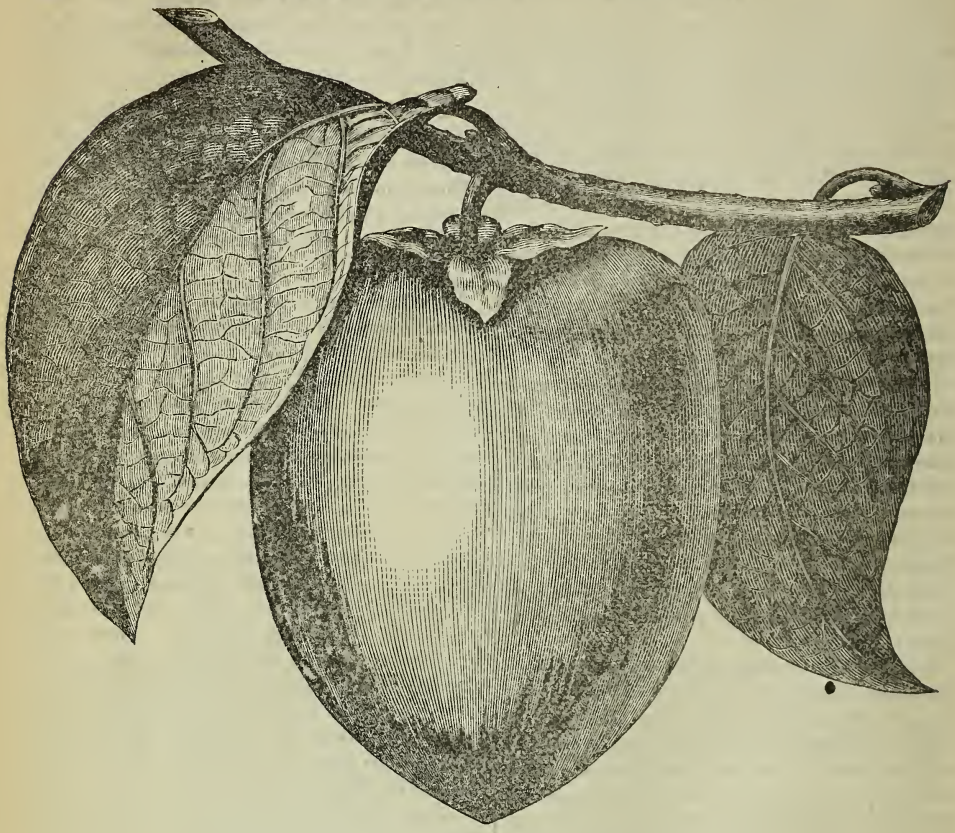
The iron–rake is not used enough—used often it answers frequently a better purpose than the hoe and much more expeditiously loosing the soil and killing weeds, and short grass.

Importance of a Good Garden:—There is nothing connected with cultivating the ground, that gives so much pleasure, profit, health and contributes so much to the comfortable sustenance of a family as a well kept garden of vegetables, small fruits and some space or spaces set apart for flowers.

A few rods square of highly enriched ground well cultivated will yield an inconceivable quantity and variety of vegetable food, if the crops be judiciously rotated in proper succession, and managed skillfully. The actual time devoted to keep in good order a garden as large as would be required to furnish every variety of vege tables, and sufficiency of each sort for a family, will be found comparatively but little—every foot can be made to bear several crops per year. For instance, suppose we sow in Sept. Spinach and Radish in same drills—without injuring the Spinach the Radish will grow and be used before Dec., and the Spinach be taken off by 15th. of March. Then Beets or Onions and Radish again, with a few Lettuce seeds; by July, all these will have matured and used; then pea or snap Beans, which will be off by 15th. Sept. ready for Turnips or Spinach again. So with other crops; some of which can be sowed between the rows after the first sown crop is near fit for gathering, like corn planted at the last working given early potatoes—Thus the same piece of ground will in 12 months produce a crop of Spinach, Beets, or Beans, 2 crops of Radish and Lettuce, and one of peas or beans. If Peas are sowed early in spring, the same ground can be occupied by Celery or Cabbage or Cauliflower.

It is really lamentable to see how much the garden is neglected in the country. We have known many farmers who are noted as exemplars in all farming operations, such as crop growing, stock breeding &ct., so neglectful of a vegetable garden that when they wanted some choice dishes—even oftentimes the commonest sorts of vegetables like Cabbage, Onions, Potatoes, Tomatoes, and the like–come to town to buy them in the market, that should be teeming with like products from their own garden—Every farmer should be a seller and not a buyer of all the courser vegetables and sometimes sell the over-supply of Celery, 3 to 4 cts a head, Egg plant, 10 to 15 cts: each, Cauliflowerare 15 to 30 cts. each. These are the ruling prices and the supply never equals the demand.

HORTICULTURE.



DIOSPYROS KAKI,

(FRUIT OF THE GODS.)

Known as the Date Plum, or Japanese Persimmon.

We give a cut of one species of this wonderful Chinese Date Plum, or Persimmon. The cut represents the Imperial or Yamato, shaped like an acorn or minnie ball. Rev. Mr. Loomis says of this sort or species, "it is very large, reddish color, with sometimes dark stripes on the surface. The flesh is soft when ripe, and particularly sweet and fine; when peeled and dried it resembles figs, being covered with sugar that exudes from the fruit. [Those we eat were so much covered that we thought it had been conserved with sugar.—EDS. MD. FAR.] It will ripen on the tree, but is usually ripened in casks,—season latter part of October to January. The most popular variety among the Japanese, from Mino, in Central Japan."

In addition to what we said in our March number of the MARYLAND FARMER, we have good authority in saying, that the older the trees are the better is the flavor of the fruit. The first or second year after bearing. the fruit is somewhat astringent and contains no seeds. As the tree grows older the fruit improves in size and flavor, and contains seeds.

TESTIMONIALS.—Hon. Horace Capron, Ex-Commissioner of Agriculture of United States, and late Agricultural Commissioner of Japan, who is well known to our readers, in years gone by, as one of the best farmers in Maryland, and eminent as a successful renovator of worn out land, writes thus

sententiously: "*The Persimmon is the best of all the native fruits of Japan, and well worthy of introduction into this country.*"

Prof. Asa Gray:—The Persimmon has great capabilities, and will give fruit of a type wholly distinct from any we possess in temperate climates. He who has not tasted Kaki (the Japanese Persimmon) has no conception of the capabilities of the Diospyros genus.

Kentaro Yanagia, Japanese Consul:—It is one of the choicest and best fruits grown in my country.

Rev. D. Thompson, Interpreter to U. S. Legation, Japan:—I may freely say that I think the Japanese Persimmon would be of great value to any country into which it might be introduced. The tree is very productive; and I have now been in Japan thirteen years, and do not remember a year in which persimmons were scarce. It is free from the worms and things of that kind, which ruin the peaches and almost all other kinds of fruit in Japan.

Commander J. C. Watson, U. S. Navy:—It is a magnificent fruit, with a rich flavor, whether eaten fresh or dried; while in size it is as much of a curiosity as any of the mammoth fruit of California. I feel sure it can and will be raised most successfully in this country.

When cut it presents a mass of rich, jelly-like sweet, and with a flavor reminding one of both the apricot and plum.—*Pacific Rural Press*, Feb. 17, 1877.

Rev. P. V. Veeder, D. D., Tokio, Japan:—It is a most delicious fruit and worthy to be ranked with the peach and pear of California. I see no reason why it may not grow and ripen well in the United States.

That this remarkable fruit, so well adapted to the soil and climate of the Middle States, may be introduced amongst our fruit growers, we have agreed to receive orders for the trees, to be delivered next autumn, it being too late now, as they are too far advanced to be removed from California. We have received in time, already, several orders.

Oatmeal–Is an important and valuable article of food. With the exception of Indian corn, it is richer in oily or fatty matter than any of the other cultivated cereal grains, and its proportton of protein compounds exceeds that of the finest wheaten flour. So that both with respect to its heat and fat making, and its flesh and blood making principles, it holds a high mark.

The American Wonder Pea is a new pea sent out this year by B. K. Bliss & Sons. It is the result of a cross between the Champion of England and the Little Gem. It is said to combine the fine flavor of the Champion and the great productiveness of the Gem, besides being very early. Peas planted June 5th last year, were ready for the table in thirty-three days from planting. It is also quite

The American Wonder Pea.

dwarf in habit, growing from ten to twenty inches high, according to soil and season. It is a great bearer. It was originated by Charles Arnold, of Paris, Ontario, N. Y., who is a well known horticulturist.

Diversified Agriculture.—We need more wheat, more grass, more stock, more manure, more clover, more bees, more of everything that will make us more independent and self-sustainiug.

To Forward Potato Slips.—If large, split to suitable sizes and place the pieces in warm water, say blood heat, for ten hours, then pack near your bed in a close compact pile, sprinkling a little fine dirt among them. In this condition keep for four or five days; then place them in *damp* dirt in the bed. This mode will forward the plant at least ten days.—*Burke Blade.*

For "Maryland Farmer."

An Apple Orchard.

A good apple orchard, when once established, is a source of considerable revenue for many years, and not only does the planter stand a chance of reaping rich rewards for his outlay of money and time, but it is a first rate heritage to leave to his children, far better than cash, for it cannot be squarded: but is a fixture, returning money each year according to the care and attention bestowed, having a due allowance, of course, for the favorable or unfavorable seasons.

With most varieties of apples, especially with the later and winter varieties, there are intermediate years of fruit fulness, every other year being fruitful while the intevening years often fail to produee a small crop. I have however, seen orchards which produced heavy crops every year, but whether it is due entirely to any one thing which the planter can do or undo, we are not prepared to say, for we have seen the best of care fail to produce heavy crops each year. With young trees we think that often follows, that their greater irtality enable them to produce regular crops, while more matured trees bear alternate years. There are some varieties which seem to be capable of fruiting heavily every year, but, whether it would hold good in every section and under all circumstances, we cannot say. The Caleb apple in the sections we are familiar with its growth, seems to come under this head, while the Townsend, Maiden's Blush and many others assuredly do not. Soil may have much to do in determining the fruit fullness, and no doubt does, but exactly to what extent must remain a matter of conjecture until it is definitely determined by careful research and continued experiments,

Above we have been premising with the understanding that the orchard has had all needful care, in pruning, cultivating and fertilizing, without which no orchard can be expected to do it best and be fruitfull even every other year without regard to variety or climate.

While New York State and some parts of northern Pennsylvania, as well as sections similarly situated in regard to soil and climate, can produce such fine crops of choice "Greenings." the soil and climate (perhaps merely the climate) of most, if not all,parts of Maryland seem unsuited to its successful production. The trees grow well, produce an abundance of wood and foilage each year, yet the trees bear but little fruit, and that little of an inferior quality, compared to the fine specimens we find offered for sale in our large markets, the product of more favored localities. While there are a few sorts which we cannot produce successfully in Maryland, there are very many others which we can grow to perfection of fine shape and size, and of excellent quality—enough to satisfy any ordinary person. And right here we would ask our readers if they ever noticed the effect that Maryland climate, in fact the climate of the entire South, has on the winter varieties of the North. A variety which we know is classed as a late winter sort at the North, and deservedly so, is planted. When it comes into fruiting we are surprised to notice that it matures comparatively earley, and fails, generally, to sustain its reputation as a winter sort, while its keeping qualities are not of the highest order. This may not be the case with all of the winter sorts. and, no doubt, is not, but it is of so frequent occurrence as to make us believe it to be the rule rather than the exception.

We are very sorry to see that the variety so well known as the Maiden's Blush is on the decline, for it is a most excellent apple. For several years it has been decaying badly on the trees, especially on old or mature trees, while the fruit from young trees is not, by any means, entirely free from it. There seems to be no cure for it.

In our estimation the Townsend is one of the choicest apples grown, and, if we were to set out another orchard, from twenty to twenty-five per cent of the trees would be of that variety. It is of very good size, of fine appearance and is most excellent in quality, being good either as a cooking or eating apple. The tree is a very fine and vigorous grower, and bears well when it does bear, which is generally not oftener than every second year. The Roman stem is also a very good late variety and commands a ready sale, while its keeping qualities, when carefully handled, are first class. Then we have the Golden Russett, which is another variety which Maryland can produce of most excellent size and quality. The Caleb is an early, or medium early, sweet apple, and, although it is so sweet, it is a most excellent baking apple, and bears, uniformly, exceedingly heavy crops of fair sized fruit. The Queen and Early Hawash, for early fruits, are most excellent sorts, as they bear heavily and come into market before the glut of other fruits, more especially peaches, for, when peaches begin to reach the markets in goodly numbers, other fruits have to decline in price. Our experience of some twelve years in fruit growing goes to prove to us that there is far more profit in growing the very early apples, in Maryland, than in growing the medium or the late sorts, for the influx of peaches depress the prices of the medium sorts, while we cannot suecessfully complete with

the North more especially New York State apples, in the late and winter sorts. Our books will show that we have realized nearly ci quite twice as much for our early apples as we did for later ones, and think our experience agrees very well with that of most others who grow apples, in Maryland, for the markets of the large cities,

We have not mentioned many sorts, for we do not believe in having a very large assortment of different kinds in a market orchard. We could mention many others, but will not do so now; and it would be a source of pleasure as well as profit to read the experiences of others, given through the columns of the "FARMER," where it will benefit a large host of others who are on the alert to learn anything which will be of use and value to them in their calling.

For the Maryland Farmer.

Profitable Strawberries.

A GOOD SELECTION FOR THE FRUIT FARM.

The enthusiasm that has recently been shown in regard to some of these new fruits,is not to be wondered at. When we compare some of the mammoth berries that were exhibited last year for the first time, with some of the small and inferior kinds that have held sway so long in our gardens, we are led to say, that the new comers are justly praised. Beautiful berries indeed they are, and possessed of qualities that render them equal favorites with those who are growing fruit for markets, as well as with those who grow them for their own amusement or for private use. Amateurs of recent years seem to be paying more and more attention to the Strawberry, and in some instances, have planted in their gardens as many as thirty or forty varieties, now testing them by using one method of cultivation, and then again in some other way, frequently obtaining remarkable results. The acquisition of some of our finest berries to our list of fruits, is due to these amateur experiments, and they well deserve our thanks. Among varieties that I will mention at this time,will be found some that are due to the experiments or watchful care of some of these enthusiastic fruit growers.

Great Prolific.—The unusually cordial welcome that this new berry is receiving, is a proof that its qualities are being well appreciated ; though exceeded in size as yet, by some of the other varieties that I have on my grounds, yet from a study of the habits of the plants, I am led to believe that a little extra care bestowed upon it, will lead to its yielding berries of the very largest size. Already have scores of berries been picked, measuring from four to six inches in circumference, and when the ground is made still richer, the public may yet be permitted to see specimens that will rival the far famed "Essex Beauties" or "Great Americans.' The plants thus far have yielded splendid crops and of a very superior quality of fruit.

Cinderella.—This variety is perhaps more widely known than the preceding one, and yet it is still one of the newest of the strawberry family. Its bright color, good qualities for shipping to markets, and the large size of the fruits, very quickly attached the notice of professional fruit growers. The hardiness and productiveness of the plants assist also in making it one of the best for profit. Last summer the berries frequently sold at fully double the price realized for the common "Wilsons," which will give some idea of its value for market purposes. It is equally desirable for family use, as its rich aromatic flavor causes it to be well appreciated.

Duchesse.—Correspondents in Mississippi, Alabama and in some of the other Southern States write me that they are greatly pleased with this famous berry. With us also it proves to be one of the hardiest and most productive,and where grown "in hills" or in separate plants has yielded enormous crops—over 200 berries having been counted upon a single bush. Its very early ripening makes it a great favorite. *Russell's Advance, Duncan and President Lincoln*, pride themselves also as being among the latest. Perhaps at some future time I may be able to give them a further description.

Strawberry plantations may be made during March or early in April at the South, but not later than that unless the plants are obtained from the North where the growth is more backward. To be successful in growing these extra large varieties to the best advantage, it will pay in the beginning to see that the ground is deeply spaded and ploughed and well enriched. Make the rows either two or three feet apart, with plants either twelve or fifteen inches distant from each other in the row. If plants are obtained through the mails, it is well to moisten the roots before setting them out. Cultivate well, and the splendid berries that will be obtained, will plainly show that the descriptions that have here been made, can be easily verified.

R. H. HAINES,

Saugerties on Hudson, N. Y.

FARMERS! *Look on the Maryland Farmer as your own Journal, and write for it and increase its Subscription List.*

Fescue Grass.

FURTHER TESTIMONY IN ITS FAVOR, ITS VALUE AS FODDER AND FERTILIZER.

Meadow Fescue, or English Bluegrass, is some ten days or two weeks earlier in the spring than any other grass grown in this country. It roots from twelve to fifteen inches deep in the ground and hence, when other grasses are burned out, the English is green and growing. When cured like Timothy, it yields a hay that does not constipate the bowels of stock of any kind; and yields a like quantity per acre as that of Timothy, but much richer, and yields from fifteen to twenty-five bushels of seed per acre according to the season.

There is one thing delusive in the minds of farmers. That in this: they think the best time to sow grass seed is in winter or spring. If they will sow Timothy, Clover or English Bluegrass seed in September, they will be much more sure to get a stand than any other season of the year, and then they are just one year ahead both for grass and seed. Here is the great advantage English Bluegrass has over Kentucky Bluegrass; you sow it in September or first of October, turn your yearling calves on it in spring, continue them there until you dispose of them as two-year olds or three, as you please, About that time your Kentucky Bluegrass might possibly be making a reasonably good showing, but the farmers here prefer having things their own way, and commence sowing small field seed—Clover, Timothy, English Bluegrass, Kentucky Bluegrass, Red Top and Orchard grass, about the first January, and sow until the first of May, sowing among their Wheat, Barley, Rye, and when they sow oats, taking the chances of the sun killing it when the small grain is taken off, and the most of them prefer sowing in February. English Bluegrass is twenty-four pounds to the bushel, and must be a money-making business, as I have paid farmers here from $1,800 to $2,200 each for their crop of seed this year and have never paid less than $2, and as high as $3 per bushel.

Mr. Lloyd grazes on nothing but English Bluegrass, and says he weighed two twin steers, three years old, every thirty days for ninety days, and each one gained one hundred and twenty pounds every thirty days. I questioned the correctness of the scales. He replied that the man who attended to the scales said they were correct. Mr. Lloyd, as well as many others, says that English Bluegrass is as good a fertilizer as common Red Clover. Some say that English Bluegrass is the best thing to stop washes they ever tried, and grows where scarcely anything else will.

Mr. S. Valentine, when he delivered his crop of seed, after receiving his money, remarked that he would not give the money for the land the seed had grown upon, as nothiug had ever been raised on the ground before.

The English Clover is now in great favor with the farmers of this region ofcountry roots much deeper than the common Red Clover, and is known to have remained from one sowing for eight or nine years, producing twice the quantity per acre of that of the common Red Clover. In sowing mixed seed, I would sow English Clover and Timothy together, as they each ripen about the same time, and English Bluegrass and the little Red Clover ripen together.

—*Our Home Journal.* D. A. Richardson.

INDIAN CORN.

We publish the following very interesting remarks made at the meeting of the Maine Board of Agriculture and Farmers' Convention held in that State in February last, by Dr. E. Lewis Sturtevant, Editor of the Boston *Scientific Farmer*. The Doctor has for some years been assiduously engaged in making experiments, practical and scientific in corn production. He has already achieved much, and no doubt will eventually discover much more, from which the best seed corn can be produced, by which, there will be fewer barren stalks and a greatly increased yield of grain per acre. His remarks will be read by Southerners with deep interest, yet must be taken with grains of allowance for difference in latitude and climate; yet the principles elucidated and the results stated, will, if properly considered and practiced upon, result in the greatest improvement of the grain as well as in increase of product per acre. The Doctor is both practical and learned, and what he reports, can be relied upon as strictly true. Whether such close planting with the same number of stalks to the hill will suit the Middle and Southern climate we have yet to learn by experience. We ourselves once planted King Phillip corn 3 by 3 feet and three to four stalks in the hill and made a fair crop of corn, averaging 3 feet high. The next year we planted it, and made much fodder and little corn, but it ran up, 6 to 8 feet high, like broom corn.

That there are many stalks in a field which bear no ears, and more tassels than ears often, we admit, and we think by careful treatment, the number of infertile stalks can be happily got rid of, and perhaps in time, a seed corn can be obtained which will have no infertile shoots. We remember Mr. Baden, of Prince George's County, Md., many years ago, by carefully selecting ears for

planting from the stalks that had the best ears nearest the ground and the most ears on a stalk, at last succeeding in getting as many as 9 ears on a stalk, fair size and length, and made himself famous as the originator of "Baden's Prolific Corn." But, while he gained in number of ears, he lost in weight and substance of grain. Upon a fair test, 2 ears of large cob gourd-seed yellow corn, measured and weighed more than 6 average ears of Baden Corn. We think the main effort in experimenting to obtain a great yielding corn, should be to obtain large ears, two or three, on a low growing corn, which shoots near the ground. This would enable farmers to plant their corn closer and have more stalks in a hill, and consequently greatly increase the yield, while not so many ears to the barrel would have to be husked, handled and shelled. We go in for big ears to save labor and time, yet yield more in weight and measure.

We could say much more, and may recur again to this interesting and important matter, but will keep our readers no longer from the sensible views of Dr. Sturtevant.

In commencing Dr Sturtevant said he had succeeded in growing on his farm 123 bushels of shelled corn to the acre ; and he believed no corn fit for seed that was not capable of producing 200 bushels of shelled corn to the acre. This has never been reached in New England and the chief reason is that there are so many barren stalks. Most corn fields will be found to contain only about 72 bearing stalks to the 100. To grow 200 bushels to the acre, we must get rid of the infertile stalks and make every stalk bear an ear. In a stalk of corn you find a provision for several ears of corn. Corn planted three feet apart in the rows, four stalks to the hill, and each stalk bearing one ear nine inches long, and we shall have over 200 bushels to the acre. At each joint of a stalk of corn is found an embryo ear of corn. The fifth joint is usually the one which bears the corn. The question is, can these embryo ears at all the joints be made to develop into a perfect ear? The answer is yes.

There are several ways to improve our corn crop. The one is to develop more ears to a stalk and the other is to render all the stalks fruitful. To develop corn which will produce twin ears by selection, select the seed from the lower of the two ears. This however,is a slow process,and it is better to reduce the nnmber of barren stalks. We have in a field about fifty ears to one hundred of tassels. We must endeavor to get clear of these chances of two to one. Experiments in this direction have been continued only one year, so are in part theoretical. The experiment is to be longer continued. Last season he went through the seed field and cut out all the barren and imperfect stalks before any fertilization had taken place. On that field there were no imperfect ears. All were good ears.

The size of the ear is not a true index of the yield. As a rule the kernels of the eight rowed are larger than the twelve. You will occasionally have a twelve rowed ear found among an eight rowed variety. In twelve cases tried, ears of the same length and invariably the eight rowed yielded the most corn. From two pieces of land treated alike he has obtained twice the corn from one that had been obtained from the other, by the selection of the seed. He could also do the same thing by culture. Plant food is the same thing from whatever source it may be obtained—dung or chemicals. The getting it to the plant is the main thing.

A corn plant under certain conditions of forced growth may be made to develop almost entirely into stalk. If this growth be checked at the proper time it will be changed into the ear. This is one of the principles of root pruning, or frequently cutting the roots by stirring the soil with a cultivator. This checks the forced growth of stalk and turns it to the ear.

Shall we plow deep or shallow? With a porous subsoil, shallow; but with a compact subsoil deep. A greater yield will be obtained by planting in drills, but the cost will be increased, so that, all things considered, hills are most profitable. Should be four plants to the hill. Cultivation should be commenced as soon as the plants are well established, and should be discontinued as soon as the tassel appears from its sheath. Cultivation can nearly or quite all be performed with horse and cultivator, with occasional pulling of a weed by hand. This will not make the field absolutely clean, but further efforts in this direction will cost more than it comes to. Prefers level culture, and the application of the manure as near the surfaee as possible. Cuts and shocks in the field after standing to ripen as long as the season will allow. If possible the grain should fully ripen and harden before it is cut.

In concluding his lecture, Dr. Sturtevant urged the farmers everywhere to improve their seed corn, and in doing so said: "What standard should be urged for the farmers to attain in this direction? It is a question very readily an swered Let each farmer improve his seed ever so little, and keep at it, and soon 200 bushels of shelled corn per acre at harvest will seem no more strange than 100 bushels does now. Fertilizers can be bought at any time without previous preparation; we can cultivate as seems to us best: but seed, *good seed*, SATISFACTORY SEED is to be obtained only by effort extending over considerable time, and an effort which must ever be regulated by wise experiment by farmers who shall not have their faith destroyed by discouragement or partial failures, and though defeated shall study the way to victory. We have no satisfactory seed corn as yet, it remains to be furnished through the combined efforts of farmers who study and observe, and who in benefitting themselves by its production shall unconsciously become the benefactors of the race."—*Maine Farmer's Report.*

KEDLACK.—A weed that cumbers the fields, geting among wheat and other crops; of the mustard tribe, and known also as chailock.

NORTHEAST GEORGIA.

BY JAMES T. POWELL.

CITIES AND TOWNS,

Northeast Georgia is well dotted with cities, towns and villages. The leading and most important city, is Athens, the county seat of Clarke county. Athens has a population of about 7,000, and is the best commercial point in Northeast Georgia, and fast becoming one of the leading cotton markets in the State. Her people are hightoned, refined, cultivated and hospitable. Our educational advantages are the best. We have the State University, the State College of Agriculture and the Mechanic Arts, the Lucy Cobb Institute and the home School, (both for young ladies,) besides quite a number of other schools, of all grades. We have eleven churches, including Methodist, Baptist, Presbyterian, Episcopalian, Catholic, Jewish and colored churches. We have two railroads running to our city, the Athens Branch and the Northeastern, on which four trains arrive and depart each day. Our city is healthy, and our climate delightful. We have eight factories in our city and immediate neighborhood, including cotton, woolen, jeans, checks, bobbin, paper and flouring mills.

Gainesville, in Hall county, is the city next in importance. Gainesville has a population of about 3,000. It is situated on the Atlanta and Charlotte Air Line Railroad. Her people are hightoned and refined, and her educational advantages are good, there being a large college in the city, for the education of both sexes, besides other schools of the lower grades. As a commercial mart Gainesville stands deservedly high, and she is destined, at no distant day, to become one of the first in our State.

Clarkesville, the next in importance, has a population of about 1,000. It is situated on the line of the Northeastern Railroad. Its citizens are refined and hospitable, and its educational advantages good.

Toccoa, in Habersham, on the Air Line Railroad, is a town of considerable importance. It has a population of about 800. In addition to these, we have Jefferson, in Jackson county, Social Circle in Walton county, Danielsville, in Madison county, Cleveland, in White county, Carnesville, in Franklin county, Clayton, in Rabun county, and Homer, in Banks county, besides others.

A HEARTY WELCOME

Persons coming to our section, for the purpose of settling, or to assist in developing our numerous resources, will always meet with a hearty welcome. They will find our people ready, with open hearts and outstretched hands, to extend the hand of welcome to all, and to do all in their power to make each one "feel at home," no matter from what section they may hail, whether North, South, East or West, and no matter of what nationality, whether American, English, Irish, Scotch, French, Russian, Prussian, or any other. We need farmers, mechanics, laborers, artisans of all kinds, and capitalists. They will find here a large field in which to labor, and one that will yield as good a dividend, if not better, than any other section, no matter what may be their employment, if they come for the purpose of employing their skill or their capital. We do not ask you what your religion or your political sentiments. We leave that to your own selves. All we ask is, that you settle and become good citizens, and assist us in building up our country, and making it what it should be. Therefore, we say to all, come and see for yourselves, and be convinced that we have but told the truth in all that we have said, not only as to our advantages, our resources and our facilities, for making money, but as to the character of our people and as to the welcome manner in which you will be received at all. Again, we extend a hearty welcome to all who contemplate moving, as well as to those who may have idle capital that they wish to invest, where it will be safe, and at the same time pay a handsome dividend, to come and see us, feeling perfectly satisfied that those who come and acquaint themselves with our section, our people and our resources, will be so well pleased that they will remain.

CONCLUSION.

It may be asked by some, if Northeast Georgia is such a country, and presents such vast and grand opportunities, why is it that it has not long since been settled up? To this we answer: The reason is a very simple one. We have, until right recently, been cut off from the outside world. Our only means of access to the markets, was by the old fashioned wagon train. Consequently, no one knew anything whatever of our section. But, since the completion of the Northeastern and Air Line Railroads, and the consequent opening up of the country, our different interests and resources have begun to be developed. Capitalists, who are always on the look out for a profitable investment of their money, have visited and settled amongst us, and have commenced operations, looking to the development of our different resources. Our State Geologists have visited and examined our minerals and water powers, and their reports have created an inquiry into the value of our section. With our present facilities and vast resources, we have no doubt, that in the near future, our section will become one of the most popular and profitable sections of our country.—*Athens Georgia.*

BELLS FOR SHEEP.—The cheapest and best insurance against dogs killing sheep are bells—plenty of bells. The sheep-dog is a great coward when in pursuit of mischief, and he wants to do it quietly—wants no noise, no alarm. Bells bought at wholesale do not cost much. Buy a side of bridle leather at the currier's, for collars, and put a bell on every sheep, if your flock is small. The price of one sheep will buy a gross of bells and leather enough and buckles to strap them. Put this gross of bells on a flock of sheep, and they will frighten every dog out of the field. Flock-masters are slow to adopt a simple and cheap remedy like this, but will go to the Legislature, hire lobby influence, and spend large sums of money to little purpose. Members of the Legislature are fond of dogs themselves, and do not want them taxed. They own no sheep, and care but little about their protection.—*Southern Farmer.*

Ginsing-

Messrs Editors, Maryland Farmer. Will you please inform me concerning the culture of Ginsing root, and what kind of soil is best adapted to its growth. At the present prices of tobacco,most of our planters will soon be bankrupt, and are casting around for other products to grow. Would be happy to hear from you soon, and where I can get the seed. Very Truly Yours

T. J. C.

We cannot advise our correspondant to enter upon the culture of Ginsing, in place of Tobacco. We have no personal knowledge of its growth or cultivation. The books tell us, that all attempts to cultivate it in gardens, have proved unsuccessful—It is held in high esteem in China–it was there once, and perhaps still is, considered a Panacea; hence its Botanical name, panax quinquefolium, an annual Shrub, found growing wild in this conntry.

This plant is naturally a wild one found in mountainous portions of country, in rich and shady woods, from Canada to Tennessee. Exports of this root have amounted to as high as $100,000 a year, but in this country it is of no value as a medicine. The roots make a decoction, the leaves an invigorating tea. It is used as a masticatory, some persons like to chew it. The taste is agreeable, sweet and bitter with some aroma and pungency and, while it is somewhat like licorice it is not so popular with boys who wish to appear tobacco chewers. We would suggest to our friend, that if he would plant fewer hills in tobacco, work the land better, after a very heavy manuring, and keep the plants free from worms, take more pains with the handling, and packing, not have more than 14 good leaves on a stalk, keep the suckers from growing, he will find Tobacco in Maryland the most profitable of all special corps that can be grown in our State; but we do not hold with specialties, diversify your corps, raise Stock--*good stock*, feed both stock and land liberally and one animal and one acre will give you more money at *less cost*, than 5 do now under the present old fashioned system of farming So long as you stick to it, you will be short of funds, and in bankruptcy.

Size of Nails.—The following table will show any one at a glance the length of the various sizes and the number of nails in a pound. They are rated from "three penny" up to "twenty penny." The first column gives the number, the second the length in inches, and the third the number per pound, that is

3-penny	1 inch	557 nails per lb.
4-penny	1½ inches	353 nails per lb.
5-penny	1¾ inches	232 nails per lb.
6-penny	2 inches	167 nails per lb.
9-penny	2¼ inches	147 nails per lb.
8-penny	2½ inches	101 nails per lb.
10-penny	2¾ inches	68 nails per lb.
12-penny	3 inches	54 nails per lb.
20-penny	3½ inches	34 nails per lb.
Spikes	4 inches	16 nails per lb.
Spikes	4½ inches	12 nails per lb.
Spibes	5 inehas	10 nails per lb.
Spikes	6 inches	7 nails per lb,
Spikes	7 inches	5 nails per lb.

From this table an estimate of quantity and sui table sizes for any job of work can be done.

Manure in Winter.—Manure may be applied to some trees and plants with much advantage in early winter, Dwarf garden trees and gooseberry and currant bushes, which do not grow with sufficient vigor, may be mulched with manure, and what is not washed into the ground beore spring may then spaded in. Dwarf pear trees, which in exposed places are liable to be injured by the freezing of the soil, benefited by the winter covering and by the enriching ofthe soil. It is also well to apply a heavy coat of manure to asparagus beds, which not, yet received any. By some attention much may be done to prevent the waste of manure as it accumulates during the winter. The droppings in hen houses should be regularly swept up and deposited in stout barrels, with alternating layers of some good absorbent. Road dust is best, but if none was saved in summer, use well-sifted coal ashes. If the road dust is from clayey or loamy regions, layers of this and the droppings, of equal thickness. will answer, but if coal ashes are employed there should be four or five times as much. Keep stables frequently and well littered to save the liquid portions, and wheel out the contents as often as twice a day into a well made manure or compost heap. Where an abundance of straw could not be obtained, we have seen excellent manures made by daily spreading a coating of fresh sand from a sand hole kept open for this purpose, the stables being so warm as to prevent mnch freezing.—*Tucker & Son's Register.*

Hints to Farmers.—A bare lean pasture enriches not the soil, nor fattens the animals, nor increases the wealtn of the owner.

One animal well fed is of more profit than two poorly kept.

The better animals are fed' and the more comfortable they are kept, the more profitable they are—and all farmers desire to work for profit.

Thought.—Farmers do not put *thought* enough into their business, not enough thorough investigation, close study, personal experience, attention to idetail, patient examination of cause anb effect comparison of methods, inexpensive experimeuts they deal too much in generalities, in guess work in traditions, in whims, in signs.—*Boston Cultivator*

In Italy the rearing of barn door fowls has taken an importation extension, in 1876, the country exported eggs to the value of 25,000,000 francs, or 15,000,000 francs more as compared with the year 1875.

Live Stock Register.

What Breed Of Sheep are most Profitable!

Our old friend Col. Skinner of the editorial staff of the *Forest and Stream*, an interesting Journal, and most handsomely printed; says in answer to this question.

"Under certain contingencies, the profits of sheep-breeding are derived solely from the increase of the flock and the annual yield of wool; but this, by far the most extensive branch of sheep-husbandry, is neccessarily confined to such pastoral countries as Texas, Colorado, California and New Mexico, where, as yet, the shepherd can command free of all cost, and all the year round, a perennial and unlimited range for his flocks.—Of course, in the older States, with a ruder climate and a circumscribed range within inclosed high-priced lands, it would be folly to dream of competing in the production of wool with the boundless grass-covered plains of the Southwest, which are free to all without limit and without price. Hence we are compelled in our sheep-breeding to look for our profits to the meat market rather than to the woolen mills, and it is npon this particular branch of this great agricultural industry that I propose to address you a few remarks.

Henry S. Randall, in his admirable letters on sheep-husbandry, tells us in selecting a breed for any particular locality, we must take into consideration, first, the feed and climate, or the surrounding natural circumstances; and, second, the market facilities and demands. We should then make choice of that breed which, with the advantages possessed, and under all circumstances, will yield the greatest net value of marketable product.

Rich lowland herbage, in a climate which allows it to remain green during a large portion of the year, is favorable to the production of large carcasses. If convenient to markets where mutton finds a prompt sale and good prices, then all the conditions are realized which call for mutton, as contradistinguished from a wool-producing sheep. Under such circumstances the choice should undoubtedly rest between the improved English varieties—the Southdown, the new Leicester, and the improved Cotswold or New Oxfordshire sheep. In deciding between these, minor and more specific circumstances are to be taken into account.

If we wish to keep large numbers, the Down will herd— that is, remain thriving and healthy when kept together in large numbers— much better than the two larger breeds. If our feed, though generally plentiful, is liable to be shortish during the droughts of summer, and we have not a certain supply of the nutritious winter feed, the Down will better endure occasional short keep. If the market calls for a choice and high-flavored mutton, the Down possesses a decided superiority.—If, on the other hand, we wish to keep but few in the same enclosure, the large breeds will be as healthy as the Downs. If the pastures be wettish or marshy, the former will better subsist on the rank herbage which usally grows in such situation If they do not afford so fine a quality of mutton they, particularly the Leicester, possess an earlier maturity, and both give more meat for the amount of food consumed, and yield more tallow."

The same writer says, in regard to the wool taste so often found in mutton, that it is because, the sheep is slaughtered with its stomach filled with undigested food, and refers to Mr. Reybold, the famous peach grower and sheep-breeder of Delaware, who explains the cause of this wooly taste very clearly. "If, said he "there be even as much as a handful of undigested food in the stomach of a sheep when slaughtered, it immediately enters into fermentation, and the gases so generated within an incredibly short time pervade the whole of the flesh, and imparts to it that taint vulgarly called the 'taste of the wool."

These remarks are from an experienced sheep breeder and grazier and should be well considered by every one, who is so circumstanced and has the inclination to go into sheep–production. What is said about Mr. Reybold's ideas of the"wool-taste" of slaughtered mutton, is truly correct. We knew Mr. Reybold of Delaware, and his opinions on all subjects, should have weight; he did know from experience, what he said about this "taste," because he was a very distinguished Butcher in his earlier days—We have reason to know that this eminent farmer, stock breeder, and pioneer Peach grower on a large scale, was held in the highest esteem all over the country during his long life and was in intimate relation with that good and brave old man Gen. Taylor ex-President of the United States. A happier hour we rarely spent, than in social converse with these two men, great in their respective pursuits, when both of them attended an Exhibition of the Maryland State Agricultural Society at Carroll's woods, years ago, where Reybold sold for $100 to Mayberry Turner, a whether mutton, which when dressed weighed 204 lbs. That genial gentleman and extensive Butcher, sold it at cost to the Eutaw House. and that mutton lasted *three months* for weekly parties of Bankers and Merchants who desired an excuse to dine out once a week, on the famous $100 mutton. We were cognizant of the

facts, standing by Gen. Taylor President of the United States, and Mr. Reybold King of Peach Growers, when the mutton was paid for, taken out of the pen and in *ten minutes* returned to the fair grounds dressed for exhibition aud weighed.–Those verily were the days of high prices and rapid work.

For the Maryland Farmer:

The Cultivation of Corn.

Corn is an important crop in the economy of the farm, and its cultivation in the most profitable manner should be the study of the farmer. It is an important crop for the reason that its grain is valuable for fattening purposes, and a large amount of valuable fodder is obtained, if it is properly cured. In order to obtain the best results a soil of good fertility is required, although the crop can be obtained from average soils that will be proportioned to its fertility. It is however better economy for every farmer to obtain maximum crops if possible, for the cost of cultivation of an acre that yields one hnndred bushels of shelled corn, is no more than the cultivation of an acre that will yield but twenty or twenty–five bushels. Here is an argument for full manuring for all crops; it is a saving of labor to apply fertilizers to smaller areas and so diminish the labor of cultivation, while the yield will be equally as good as where spread over a greater surface which reduces the fertility and correspondingly the yield per acre. A mellow loam is always good for corn, and should be thoroughly prepared for receiving the seed. Individuals differ as to the best time for plowing; if greensward some prefer that it be plowed in the fall and allowed to stand snbject to the disintegrating operations of the atmospheric changes of winter, and then replowed in the spring. On the other hand others, and perhaps a larger proportion prefer to wait until spring, just before the time for planting. when the plowing is done, and followed by panting as soon as possible there after For old ground it is usually considered best to plow in the spring. With regard to the applica- of fertilizers,the practice has considerably changed; whereas it was formerly considered necessary to spread a large proportion of the manure upon the surface before plowing, and so turning it under, now it is deemed best to plow first, then spread the manure and incorporate it with the soil by means of the harrow.

A very essential point to be observed in the preparation of the soil for the seed,'as its pulverization. Future success depends almost as much upon that as upon the application of manure. To attain this, affords a reason for omitting plowing until about the time for planting, for if a soil is unduly changed with moisture, as it is liable to be in the early spring, the plowing of it in that condition instead of aiding disintegration, will sometimes cause it to be baked and lumpy which will require the labor of the whole season to correct.

After plowing, manure should be spread and then incorporated with the surface soil by means of a pulverizing harrow. Perhaps it ought to be stated that the depth of plowing must be governed by the character of the soil and the underlying sub-soil.

Having plowed and manured the field, it should be marked off for the rows, which according to northern modes and varieties of corn should be from three to three and a half feet each way. For the purpose of aiding in the early growth of the corn, it is best to put in each hill a small quantity of superphosphate, compost, hen manure or some other active manure to give a "start" to the young plant.

The after cultivation should be sufficiently frequent to insure the destruction of weeds. Although the more corn is worked among the better it is for the development of the grain. Very much of the labor of cultivation can and should be performed by means of the horse and cultivator and horse hoe, which should be brought into frequent use.

With the different modes of curing corn, it is now more generally practiced, to wait until the grain is becoming hard, and then to cut up at the ground, placing in stooks to remain in the field until cured, when it may be carted to the barn for husking or husked in the field.

With northern corn, in which the stalks are of moderate size, if cut and cured in this way, and housed or stacked before becoming injured, it is considered by many to be as valuable for fodder as medium quality hay.

W. H. YEOMANS.

Columbia Connecticut.

Editors Maryland Farmer:

NEWBERN, N. C. MARCH 12th 1879.

The cotton seed business is going to almost revolutionize the South The seed is now used almost entirely for manure. After the oil is pressed and the cake fed to stock, the amount of manure will be vastly increased.

A farmer now takes one ton of seed, and puts it on two acres of land, it will produce him a fair crop of cotton for one season. No effect after the first season.

A farmer takes a ton of cotton seed to an oil press ; he gets from it 32 gallons of oil, worth as it comes from the press in crude state, 40 cents or $12.80, He also gets 800 pounds of oil cake ; this cake is very superior, far ahead of linseed oil cake, it being very sweet and palatable.

This 800 pounds of cake fed, say to only one milch cow, will increase her milk immensely, and the manure which he gets from this one cow, will do him four-fold the good he would have got- ton from the seed used as they now are. If one ton of seed will do this, see the increased amount of good that may be done with the 1,600,000 tons of seed, which are annually raised in the South. There is sufficient to feed all the milch cows in this country.

TRULY YOURS,
WILLIAM H. OLIVER.

THE

MARYLAND FARMER,

A STANDARD MAGAZINE.

DEVOTED TO

Agriculture, Horticulture & Rural Economy,

EZRA WHITMAN,

Proprietor and Editor.

COL. W. W. BOWIE, Associate Editor.

141 West Pratt Street

BALTIMORE.

BALTIMORE, MARCH 1, 1878

TERMS OF SUBSCRIPTION

One dollar and fifty cents per annum, in advance
Five copies and more, one dollar each.

TERMS OF ADVERTISING

1 Square of 10 lines or less, each insertion	$1 00
1 Page 12 months	120 00
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½ " 12 "	70 00
½ " 6 "	40 00
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Cards of 10 lines, yearly, $12. Half yearly, $7.

Collections on yearly advertisements made quarterly, in advance.

CLUB SUBSCRIPTIONS.—Any one who chooses to get up a club of ten, and sending us *ten dollars* will have a copy gratis.

In clubs of five or more, $1.00 each; and names may still be added to the clubs already made up at the same price.

FARMERS! WRITE FOR THIS, YOUR SPECIAL JOURNAL, AND INTERCHANGE VIEWS WITH YOUR FELLOW FARMERS

☞Our friends can do us a good turn by mentioning the MARYLAND FARMER to their neighbors and suggesting to them to subscribe for it.

TO POSTMASTERS—You will see that the subscription price of the MARYLAND FARMER is $1.50 per year; but you will be allowed a commission of 50 cents on each subscriber that you will send us; that is, send us $1.00 and keep 50 cents on each.

☞Now is the time to subscribe, and advertise, when the year is young, and when we are sending out hundreds of specimen numbers of our journal, that it may make its acquaintance with new, and, we hope, be welcomed by old subscribers and advertisers.

FIFTEENTH VOLUME OF

THE MARYLAND FARMER.

This is the fourth number of the 15th volume of THE MARYLAND FARMER; and we claim it has been published longer continuously, without cessation, by the same publisher, than any other farmers' journal in this or other States south of Philadelphia.

A *popular* magazine,—as attested by our subscription list, frequent kind letters from parties, and the notices of our brethren of the press in this and other Southern States,—and is also a *great advertising medium*, as shown by the numerous new advertisements in the present number.

During the present year, we shall allow nothing to prevent our making it superior to all former issues, and maintain beyond dispute its high character.

Its aim will be to admit nothing in its columns like Theory, unless based on science controlled by reason; nor anything called Practical, unless proved by successful experiments.

If our old subscribers will do us the favor to canvass for THE MARYLAND FARMER, by showing it to their neighbors and soliciting their subscriptions, they will confer a great favor on us, and, we do not doubt, confer a greater profit on the new subscriber.

MAKE UP CLUBS.

To Clubs of five or more, with pay in advance, we will supply THE MARYLAND FARMER at $1.00 each, per year,

Those who will send us $2.50, during this month, shall receive two copies for the year.

Any one who will send us six dollars for six subscribers, shall receive a seventh copy for getting up the club.

These terms enable persons to get the Magazine at $1.00 per year, postage paid.

YOUNG MEN!

It is an easy way to make money by getting subscribers for THE MARYLAND FARMER. Send 15 cents for Specimen Copies, and ascertain what Liberal Commissions we will allow.

ADVERTISERS.—While we are gratified to perceive from the large number of advertisements in the MARYLAND FARMER—increased monthly—that our journal is appreciated as a profitable medium, yet, we are surprised that Farmers who have stock of all kinds for sale do not advertise more freely; merchants properly estimate the value of advertisements, while farmers lose hundreds of dollars by not doing as the merchants do, We have daily enquiries where poultry, eggs, sheep, cattle, horses, &c. are to be had, and at what price. We can not answer in all cases. It is true we have an agency ourselves for the purchase of such articles, but we would have our patrons deal personally with the owners, who advertise.

OUR FRONTISPIECE.

WE give to our readers an excellent picture of the Maryland Agricultural College, with a succinct history of this institution, written by Prof. Warfield. The cut really does not, and could not well do, jnstice to the full attractiveness of the College, and its pleasant surroundings. The dense oak grove on one side, and in the rear of the building has, been necessarily left out.

To Farmers!

The Maryland Farmer is Your Paper!

We so design it! We want every subscriber to feel a personal interest in our Journal, and to look upon it as *their institution*; to write for it, to let their brother farmers have their experiences and views, and thereby call for an interchange of sentiments, and we want every subscriber to urge his neighbors to take the paper, and thus enable us to enlarge its sphere of action and increase its usefulness and attractiveness. We desire all our former subscribers to look on it as a part of their possessions and do all they can to increase its circulation, and thereby necessarily help the general as well as individual prosperity of all who are engaged in husbandry of every shade or character. Farmers call the MARYLAND FARMER *your* paper. We wish to enlist your warmest sympathies and your best efforts to extend its circulation, which can be best done by yourselves contributing to its monthly fund of information.

THANKS.—We are much indebted to Robert Beverly, Esq., of Virginia, for a copy of the Preliminary Report, No, 2, by M. F. Maury, L. L. D. etc., entitled "Physical survey of Virginia; her resources, climate, ond productions." It has a superior large map of the State, and is as full of information as might be expected from an author of such eminent ability and correctness in all statements of facts. It should be widely circulated by the State, as the best possible means of attracting immigration to the glorious old Dominion.

LEE'S PREPARED AGRICULTURAL LIME, advertised in our columns this month, will attract the attention of farmers because of its low price and the great superiority it has over the common lime used in agriculture. It is warmly recommended by some of the best farmers in the country who have practically tested it. One of its chief qualities is the rapidity with which it assists decomposition of vegetable matter, and rendering it soluable plant food.

FINE ENGRAVINGS,—We received from the "Fine Art Publishing House," Portland, Maine two beautiful steel plate engravings—"The Morning of Life" and "Purity." In "Purity" the artist has represented the dream of a little orphan of her angel mother with great power and effect. In the other picture, we would call especial attention to the wonderfully natural expression of love. joy and tenderness on the face of the younger girl. Her sister has evidently been away all day, and the little pet has been lonesome, and now she is *so glad* to see her. Both pictures plainly tell their own story—beautiful stories. As fine works of high Art, we think they are rarely surpassed.

THE STATE FAIR AT PIMLICO—.The Maryland agricultural and mechanical association, of which the Hon. John Merryman, of "Hayfields," Baltimose county, is president, has been reorganized, and it has been decided to hold a state exhibition at Pimlico next fall, opening on Tuesday, October 1st. This will be the first agricultural show at Pimlico for three years, the exhibition of 1876 having been omitted, and the society in 1877 having united with Carroll county in the exhibition at Westminister. The latter will unite with the state society at the coming exhibition, and thus aid materially in assuring its success. The Hon. Samuel J. Tilden has been invited to deliver the oration, and a favorable reply is expected from him. G. W. Harris, of Washington county, was elected to fill a vacancy in the board caused by the resignation of H. O. Devries, of Howard county. The premium lists have been revised, and aggregate in value several thousand dollars. Trials of speed, plowing matches and other features of interest will make up an attractive daily programme, and efforts will be made to secure a full display in all departments of the exhibition. All entries of handiwork by ladies will be free, and on the closing day of the fair only a nominal charge of 25 cents admission will be made.

SHROPSHIRE MUTTON,—The Shropshires seem to be just now the favorite mutton sheep with the sheep-breeders of the Eastern Shore. We saw lately at the stalls of Mr. Rose and at the Green House of Messrs. Wagner some splendid carcasses of this breed of sheep from Dr. Wm. DeCoursey's flock.

In calling attention to the advertisement in this number, of Lissauer & Co., Jewelers, 225 West Baltimore Street, we must say, we consider it one of the best Establishments of the kind in the city of Baltimore.

MONSIEUR VILLE'S LATE LECTURE, as translated by our accomplished correspondent, Miss. Howard of Georgia, is deserving of the closest attention of our readers. The lecturer is a learned scientist of France, and Miss Howard is recognized as one of the best French translators in this country. M. Ville, himself acknowledged to her, that her translation of his former series of lectures lately published in book form in the United States, was the best and most true to his meaning, of any translation that he had seen in the English, German or other language, in which his lectures had been published. Miss Howard has a decided taste for horticulture and agriculture, and has made several scientific experiments in the growth of plants ; the benefits of which she will, we hope, give to our readers before long.

For "Maryland Farmer,"

Chemical Fertilizers, versus Barnyard Manure.

Editors of the Maryland Farmer:

I send you an extract from a Lecture by M. G. Ville in which he gives the Account Current of the farm of Bechelbronn as conducted by M. Bous singault, the bitter opponent of the new School of Chemical Fertilizers. M. Boussingault still contends profitable farming depends on the amount of stock kept on the farm, His account speaks for itself, though the Agricultural Laws and prac tices of France may not be in all particulars suited to our soils and climate. Yet the study of the researches of the profound thinker, practical farmer and learned Chemist M, G Ville, cannot fail to show us truths which we must also learn by the slow teachings of a painful experience.

A LECTURE BY M. G. VILLE, TRANSLATED BY MISS E. L. HOWARD, OF GEORGIA.

I begin where I left off last year, when I said in reply to a captain, turned farmer, who asked my advice: "Fill your barns with hay and straw; manure your meadows with purchased fertilizers, and when you have plenty of feed, then think of buying cattle."

Let us give the reasons for this advice. Are cattle indispensable to successful farming? No. Since the advent of chemical fertilizers cattle have lost their rank as exclusive means of fertilizing. Will the soil lose part of its native qualities unless manured? No. For chemical fertilizers give back to the soil more than the crops take from it.

Is it true that, that system of culture in which the meadow occupies the same space as the cultivated ground is both secure and profitable? No, this system is neither secure nor profitable, for it exhausts the soil.

I found on investigating the subject, that the laws governing the formation of animal substances are the same as those governingthe formation of veg etable substances, and that the economic conditions which make agriculture remunerative are equally necessary to the raising of stock. The beings operated on are different, the substances necessary to their production are also different, but I repeat the laws which regulate the growfh of plants and animals are the same.

When I attempted for the first time to define the complex work of vegetation, both in its effects and causes, I took the formation of minerals as terms of comparison, their phenomena being simple, basing my observations as much upon contrasts as upon analogies—in order to fix the play of the multiple actions, of which vegetation is the result.

To day I follow the same method. I have too long felt the activities of vegetal life vibrate beneath my hand, not to use this powerful means of control and investigation. Knowing how plants are born, live and die, I make use of vegetation as a touchstone to define, by perpetual paralels the conditions necessary to the formation of animal matter.

But as the practical is the end of all my efforts, permit me, before penetrating to the play of the conditions regulating animal production, to fix by the aid of a few figures, the place occupied by cattle on a farm where manure is the sole fertilizer, to show what part of the capital is thus locked up, and what the profit, if there is any. In other words, to fix the position and value of stock on a farm or in a system of agriculture dependent upon cattle for a supply of manure.

I take for example the oft mentioned farm of Bechelbronn, at the time it was worked by M. Boussingault.

Of the 275 acres composing the Farm, 150 in the meadow.

Cultivated ground	125 acres.
Meadow	150 acres.

First conclusion. If this system has a merit, it certainly is not that of simplicity, for to maintain the fertility of 125 acres of land, we begin with the drawback of 150 acres of meadow, not to speak of the stables and stock.

Does this system overcome these disadvantages by its great profits ? no, for from an investment of from $6,000 to $7,000 we get hardly $633,00 profiit· You will see this to be a poor result.

This profit arises from the sale of $2,098,71 worth of produce. But to assure the continuance and permanence of these sales, the presumed source of profit, provision must be made for $2,711,

12 animal produce which only figures in the account current as a means. Consequently,the greater part of the capital is absorded by that part of the sys tem which yields no profit—while to this $2,711,12 already mentioned, we must add the value of the animals which is not less than 1,170,00.

[TO BE CONTINUED.]

PUBLICATIONS RECEIVED.

From Mr. Robert Manning, Secretary, the Transactions, Part II, of the Massachusetts Horticultural Society, for 1877.

B. K. BLISS & SON'S *Illustrated Catalogue and Amateur's Guide to the Flower and Kitchen Garden.* This is a work of 204 pages, profusely illustrated, and a beautiful two page colored engraving of lovely flowers. The book is filled with a mass of valuable information in regard to the cultivation of plants, flowers, and vegetables, &c. It ought to be in the hands of every one who grows either flowers or vegetables.

INTERCULTURAL TILLAGE, BY DR. E. LEWIS STURTEVANT, Editor of *Scientific American*, Boston, an interesting and able Essay, which after reading more carefully we shall notice more fully.

TO THE EAST BY WAY OF THE WEST, by the late Bishop E. M. Marvin, D. D., St. Louis; Bryan, Brand & Co., Publishers. Illustrated. Price, $2.00. This is one of the very best books of travels we have ever read. It is written in a conversational style, charming, clear, simple in statement, and always attractive in the style of narration. It seems like a friend takes you by the hand and carries you along with him in all the various scenes he saw in the countries he visited, and explains like a well versed Cicerone or guide, all that he shows you, so that when you lay down this admirable book, you feel that you know all you care to know of the history, climate, institutions, people (and their habits and customs,) general productions and views of buildings, scenery, &c., of Japan, China and the Eastern world, while during his hasty travels over Europe, he tells you more, and in a more entertaining way than you ever heard before of those old kingdoms. It is a most delightful book, and will be appreciated by every body who is fortunate enough to secure a copy.

STOCKBRIDGE MANURES.—These manures, of which so much has been said in the Agricultural Papers, have been compounded by Prof. Stockbridge, and are now for the first time to be manufactured in Baltimore by authority. See advertisement of Davison & Co. in this and succeeding numbers of the Maryland Farmer.

Revival of the Agricultural Society of Charles County.

Ws read with pleasure a well written editorial in our always welcome exchange, "The Maryland Independent," urging in strong terms the propriety of re-establishing the Charles County Agricultural Society. We do earnestly hope that this stiring appeal will be effectual. Oh! with what pleasure do we remember in the good old days of the past, the joyous meetings in Port Tobacco of the whole-souled people of Charles, at the annual farmer's Festival. Yet memory is tinged with sadness, when the crowd of honored men and noble women then and there assembled, are now no more. But, for the sake of their memories, let their sons and daughters again take up the work they left off and following their example, organize an association which is calculated to do great good toward agricultural and mechanical progress, and at least create a generous rivalry, while securing a generous fraternity of feeling among all who have one common interest—the welfare and prosperity of the county and its whole people,

PELARGONIUM:—"Mrs. John Saul," sent out by John Saul, Florist of Washington D. C., with his Plant Catalogue for 1878. We acknowledge with thanks the receipt, from Mr. Saul of a splendid large colored print of this superb flower, executed in the highest style of art, and true to nature.

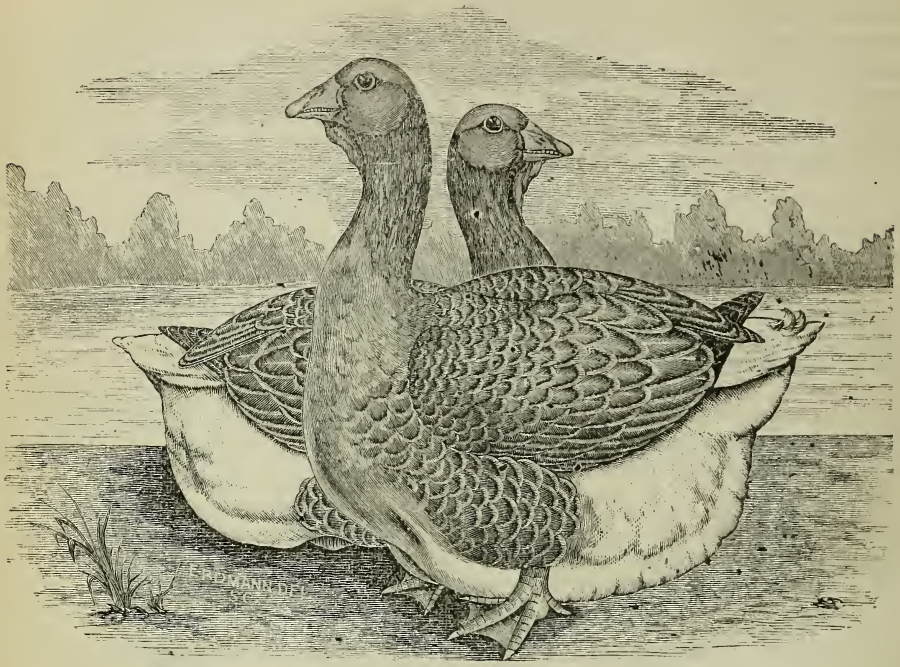
This plant is only one of many new varieties of lovely flowers the skill of Mr, Saul has originated and presented to the floral world.

MEETING OF THE MARYLAND HORTICULTURAL SOCIETY:—The March meeting of the Society was held on the 21st of that month, at the Academy of Music, and was highly successful as an exhibition. The attendance was large. The display of flowers and vegetables highly creditable. During the meeting, Captain Snow delivered an interesting and instructive address upon "The Progress of Floriculture," which was well received by the audience, and for which the Society awarded him a vote of thanks.

JOURNALISTIC.

LIVE STOCK JOURNAL, Stockville, Mississippi, Edited by E. Montgomery. Is the only Journal south of Kentucky devoted specially to Live Stock and does credit to the Editor. It is a weekly and its pages are filled with useful information upon all subjects connected with Stock of all kinds, poultry, etc., and should be extensively patronized in the South. Breeders of stock will find it will repay them ten-fold in a year, by the important information it gives.

POULTRY HOUSE.



WATER FOWLS FOR FARMERS.

For the Maryland Farmer.

It is an unaccountable fact that the raising of Geese and Ducks in quantity for the markets is so much neglected by our American Farmers, while Englishmen possessing only a few acres and access to a stream or pond, raise such large numbers, with a good profit. Many readers of the Maryland Farmer have creeks running through barren parts of their land, near by which, could be placed cheap houses for Geese—as which no land or water fowls can be so easily raised or at so good a profit.

Having once secured a good breeding stock of three to four geese mated to one gander, all large fine specimens, the same flock can be retained for breeders for six or eight years at least. In summer they will thrive on pasture alone. The geese begin laying in February, and lay 13 to 15 eggs. Either a turkey hen or a large Asiatic hen can be used for incubating, which requires thirty days. sprinkle the eggs with tepid water for about ten days before hatching. Feed the young goslings "little and often" with hard boiled eggs, bread crumbs and scalded meal; they are soon ready to shift for themselves and can be marketed without extra fattening as "green geese." Even the farmer who has no stream of running water can raise geese profitably by giving them plenty of fresh water for drinking and a large tank or tub for bathing. The principal varieties of thoroughbred geese are the Toulouse, Bremen or Embden and Hong Kong or China. Of these the Toulouse, (of which we give an illustration accurately drawn and engraved from life) are the largest, having reached the maximum weight of 60 pounds per pair and goslings 48½ pounds per pair at the Birmingham show in England. They are of a gray color with white on the belly and are a valuable variety. The Bremen geese are pure white in color and are hence more valued for their feathers and are often as large as the Toulouse, the greatest weight ever known being 58½ pounds per pair. Their meat is very delicate, they are hardy and good layers. The Hong Kong geese are much smaller than either of the preceeding, but are the best layers known, often laying three or four litters in a season, and sometimes as many as thirty or forty eggs before sitting. In a future article we propose to discuss the merits of ducks.

W. ATLEE BURPEE.

Philadelphia.

We are glad that our esteemed correspondent proposes to write about Ducks, as they are our favorite water-fowl for the table. [EDS. MD. FAR.

For "Maryland Farmer."

Messrs. Editors:—As frequent inquiries are made as to the relative values of fowls, determined by their laying qualities, size, hardiness etc ; I beg leave to submit to your readers the following estimate by which they may be somewhat guided in determining their approximate value.

I do not claim that this estimate is perfect, but that it is made up from information received from breeders and writers, and with your permission invite breeders to write me, and if any plausible change can be suggested, will submit it to you for future publication.

	As sitters	Average no. eggs in a year	Average wts. cock & hen	Quality of flesh	No. eggs to lb.	Health
Hamburgs Golden Spangled	non	215	4½ lbs. 2¾	good	9	hardy
Hamburgs Silver Spangled	"	215	4 2½	"	10	"
Hamburgs Black	"	215	4¾ 3	"	9	"
Polands	"	195	4 2½	"	9	delicate
Leghorns	"	195	4 2½	fair	9	hardy
Houdans	"	195	5½ 3½	good	7	"
Crevecœurs	"	195	6 4	fair	7	"
Black Spanish	"	185	5 3	poor	8	"
La Fleche	"	185	6 4	fair	7	delicate
Cochins	good	135	9 7	good	8	hardy
Brahmas	"	145	9 7	fair	8	"
Plymouth Rocks	"	145	8 6	good	8	"
Langshan	fair	165	9 6	"	7	"
Red and Dark Games	good	145	5 3¾	"	9	"
Light and White Games	"	155	4½ 3	"	9	delicate
Bantams	"	135	18 oz.	"		"

RESPECTFULLY &C.,

W. S. TEMPLE

For the Maryland Farmer.

Messrs. Editors :—The accompanying cut of the Black Hamburg hen, Princess 2d, sire Black Prince (1,114); Dam Princess (1,117), was presented by James M. Lambing, Parker's Landing, Pa., proprietor of the great Belt Poultry Yards.

It is hard for a breeder to get so well established as to be at the head of the Fraternity; but it is pretty generally acknowledged by all fair-minded fanciers that Mr. Lambing stands at the head of the list of American breeders, and the best English judges place him in the first rank of breeders of Black Hamburgs. Princess 2d has won seven first and special premiums. Respectfully, &c.,

W. S. TEMPLE, 47 S. Howard Street.

TECHNICAL TERMS.

There are very many persons who are familiar with poultry, their general appearance and common habits, and yet wholly unacquainted with the recently introduced terms as applied to fowls; words the meaning of which thus used is Greek even to those well informed on general subjects. For the benefit of those who may desire to obtain the knowledge, I subjoin a glossary of technical terms, derived from the best authorities:

Beard—A bunch of feathers under the throat of some breed of chickens, such as Houdons or Polish. There are many phrases, such as *breed, brood, brooding, carriage, etc.*, that even the least unlearned will understand. We often hear of a "litter of chickens," or similar expressions. Litter, as applied to poultry, is inelegant and in bad taste. We hear of a litter of pigs, a litter of kittens, etc., but a litter of chicks is entirely out of keeping. *Carunculated*—Covered with small fleshy protuberances, as on the head and neck of a turkey cock. *Chick*—A newly hatched fowl. *Chicken*—This word applies indefinitely to any age under one year old. *Clutch*—This term is applied both to the batch of eggs sat upon by a fowl, and to the brood of chickens hatched therefrom.

Cockerel—A young cock. A cockerel does not truly become a cock until eighteen months of age, although he is generally thus termed at the age of one year. Not until a year and a half old does he get his final moult, and attain to the full glory of plumage and size. Cockerels have many deficiencies that disappear when they emerge into full grown, full-plumed cocks. Then they become exhibition birds with some trimming, and yet be poor birds to breed from. It does not always follow that a bird is suitable for breediug purposes simply because he or she has won a prize. Many imperfections that presented themselves in the chicken may grow out, but the offspring of such birds generally repeats the discrepancy. Imperfect plumage may grow out or be plucked, and other points be conceded by a covering of flesh. Exhibition birds do not always become so without aid. Nature is often assisted by art in this respect as well as others.

Comb—The fleshy protuberance growing on the top of the fowl's head. *Condition*—The state of the fowl as regards health and beauty of plumage. *Crest*—A crown of tuft of feathers on the head; of the same significance as top-knot. *Crop*—The receptacle in which the fowl's food is stored before passing into the gizzard for digestion. *Cushion*—The mass of feathers over the rump of a hen, covering the tail—chiefly developed in Cochins. *Dubbing*—Cutting off the comb, wattles and earlobes, so as to leave the head smooth and clean. *Earlobes*—The folds of bare skin hanging just below the ears, by many called deaf ears. They vary in color, being red, white, blue and cream-colored. *Face*—The bare skin around the eye. *Flights*—The primary feathers of the wings used in flying, but tucked under the wings out of sight when at rest. *Fluff*—Soft, downy feathers about the the thighs, chiefly developed in Asiatics.

Furnished—When a cockerel has obtained his full tail, comb, hackles, etc., he is said to be furnished. *Gills*—This term is often applied to the wattles. *Hackles*—The peculiar, marrow, long feathers on the necks of fowls. *Henny or Hen-Feathers*—Resembling a hen, from the absence of hackles and sickle-feathers, and in plumage generally. *Hock*—The joint between the thigh and shank. *Keel*—A word sometimes used to denote the breastbone. *Leg*—In a living fowl, this is the scaly part, usually denominated the shank. In a dressed bird, the term refers to the joint above. *Leg Feathers*—Feathers growing on the outer sides of the shanks in many of the Asiatics. *Mossy*—Confused or indistinct markings in the plumage.

Pea-Comb—A triple comb, resembling three small combs in one, the middle being the highest. *Pencilling*—Small markings or stripes over a feather. These may run straight across, as in the Hamburgs, or in a crescent form, as in Partridge Cochins. *Poult*—A young turkey. *Primaries*—The flight feathers of the wings, hidden when the wing is closed, being tucked under the visible wing, which is composed of the "secondary" feathers. Usually the primaries contain the deepest color belonging to the fowl, except the tail, and great importance is attached to their color by breeders. A cockerel or a pullet of some breeds should never show a white quill, or a white shaft to a quill, to become perfect breeding birds.—*Country Gentleman.*

PROPOSED DISTRICT OF COLUMBIA HORTICULTURAL ASSOCIATION:—We are indebted to Mr. John A. Baker, of Washington City for a card of invitation to attend a meeting of Florists and Amateurs, to be held at Talmadge Hall on Saturday the 30th ult., for the purpose of organizing a Horticultural Association. While we could not be present, we heartily wish the meeting to be a successful one. There is no place in the country where such a society can have more advantages. The Capital of the Union presents more favorable circumstances and influences for a great Horticultural Society, than any city in the United States.

DOMESTIC RECIPES.

FEVER AND AGUE.—150 drops of Laudanum, 4 oz. Peruvian Bark, ½ oz. of Hartshorn, in 1 quart of whisky or wine. Day of the chill, take 1 small wine-glassful, every half hour 'til symptoms of of chill, then stop the medicine. Interventing days take a small wine-glassful before every meal.

This recipe was kindly furnished us by Mr. H., at Viaduct Hotel, on Balto. and Ohio R. R. It is said to have been tried by hundreds, and found efficacious. Many railroad employees, subjected as they are to all weather and changes of weather have suffered greatly with this complaint and after useless efforts of doctors, have got this recipe and soon recovered full health.

FLAKY PIE CRUST.—Mix the crust same as usual, by rubbing the lard into the flour. Have the pies all ready for the top crust, which roll out large enough to cover your pie. Now spread lard over it, as butter on a piece of bread. Then sprinkle with flour, and spat it into the lard with your hand until it is well mixed. Cover the pie, dash cold water over it, set it into the oven and bake quickly.

VEAL OMELETTE.—Four pounds veal, one pound fat pork, four eggs, one grated nutmeg, six soda crackers. Chop veal and pork fine, crumble the crackers, and mix all together with the eggs well beaten. Bake. If any one will try it, I think it will be pronounced good.

A Paris journal states that the bad smell and taste of butter may be removed by working it over in water mixed with chloride of lime. Take a sufficient quantity of water to wash it in, add twenty five to thirty drops chloride lime, for every ten pounds butter. When thoroughly worked in this solution, it should be worked again in pure water, when it will be as sweet as when first made.

NORTH GEORGIA LANDS.

To Editors Maryland Farmer:—Will yon kindly give space in your columns to a notice of some North Georgia lands, that are now being offered to immigrants and capitalists? This section of the State is, perhaps, the best portion of that noble old Commonwealth. The climate is delightful—the water pure and cold—the lands productive, and well suited for grain and dairy purposes. These lands are contiguous to the main Trunk Railroad, that connects with the North and West. The community is moral and law-abiding—churches and good schools convenient—several good dwellings on the tract in question. For a colony—I know of no investment more desirable or convenient. The price is reasonable, and every advantage will be allowed to the settlers.

This communication is written in the interest of the thousands who are crowded in our cities, and whose energy would find a fine outlet in this splendid location. The writer knows the country well and is satisfied that all inquiries will be satisfactory.

ONE WHO HAS NO PERSONAL INTEREST.

For the Maryland Farmer.

Use of Salt in Orchards and on Grass.

Washington, March 19th, 1878.

Editors Maryland Farmer:—I saw my name quoted in an agricultural paper, in relation to the liberal use of salt in orchards, and fearing that injury may result thereby, beg to say that I think no owner of an orchard should permit it to be salted, if not done immediately under his personal supervision—if not done broadcast and at a rate not exceeding five bushels per acre. If applied to young trees—a quarter of a pint spread with a radius of a foot around the trees would be ample, taking care that none of it was against the body of the trees.

Grass lands, I am sure, will take ten bushels to the acre, and I think twenty, with advantage; and although the grass may appear to be killed, it shoots forth, with renewed vigor.

Very truly yours,

DANIEL AMMEN.

Messrs. Editors:—At our county Agricultural Fair last year, we introduced the Southern "Tournament," we feel though, rather at a loss about many of the minor rules and regulations. Can you give me this information or can any of your readers of your *valuable* "MARYLAND FARMER?"

Our prizes are liberal, viz: $50, $40, $30 & $20, besides a Cup for our county riders, and have no doubt we could procure some good riders from your State. Any information on this subject will greatly oblige, Yours very truly,

W. S. T. ex Pres. and one of the Directors.

Burlington, N. J. Mar. 18 1878.

Will not some Sir Knight respond to this call by sending us the general as well as minor regulations governing Tournaments

THE SEASON.—An esteemed friend and occasional correspondent writes from Columbus, Conn., March 18th.

"Our winter and spring has been unusally and remarkably mild and pleasant, but yesterday we were visited by a severe north-east snow and rain storm. I fear the fruit beds may be so far developed that they will be cut off by cold weather yet.

I am very much pleased with the "FARMER," consider it a valuable companion for every progressive farmer, in whose possesion it should be found.

THE APIARY.

Bees and Honey in the South.

BY PAUL L. VIALLON.

CHAPTER XII.

TRANSFERRING.

As many of our readers may have some bees in the old box hive, or may purchase some, and may desire to transfer them into the moveable frame hive, I think proper to describe the way it must be done. The operation of transferring combs, brood and bees is not as difficult as some may suppose.

The best time for transferring is from the appearance of the flowers of the plum and peach trees until the swarming time; though it *may* be done at any time; but it must be done with caution, so as not to induce robbing in the Apiary. When bees are busily engaged gathering, we can perform the operation in the open air, under the shade trees, but otherwise it will be better to do it in the extracting room—if we have no extracting room we may do it in any room, taking care to shut the opening or tack a piece of bobbined to them, which will admit air and light and prevent bees from entering.

Before beginning the operation we must provide verything necessary, so as not to lose time. We shall need four to six strips to each frame, one-eight inch thick, half inch wide and half inch longer than our frames are deep, with notches at the ends. A table to work upon and to pla e our combs as taken out of the old hive. One or two honey knives. A board a little larger than our frames, on which are spread several thicknesses of cloth, to prevent the bruising of brood combs, when laid upon it to fasten them in the frames; a bucket or anything convenient in which to put the pieces of honey not placed in the frames, a pail of water to wash the hands, etc. Some wrapping twine to fasten the combs into the frames and a coal chisel to cut the nails from the old hive.

When we are ready to operate, we go to the hive we wish to transfer, and blow a few whiffs of smoke in at the entrance, close it and rap for a few minutes on its sides, so as to cause the bees to fill themselves with honey; then we carry it where we wish to operate, and place in its stead an empty hive, in which the bees returning from the field can cluster. We turn the old hive upside down and place another hive or box over it and wind a sheet where the hives come together, so that nonc can get out. Now we proceed to drive the bees into the upper hive by rapping on each side with a stick for about fifteen minutes, beginning on the lower part of the lower hive and ascending gradually until we get within two or three inches from the upper hive. The bees will go with the Queen into the upper hive and cluster. Now take the upper hive down, and carry it where the old hive stood, in place of the empty hive placed there to catch the returning bees, giving them air by raising it about half inch in the bottom. Now we proceed to knock the old hive apart, by cutting the nails of the board facing the side of the combs; and we cut the combs and with as little breakage as possible. Now we place a comb on our board prepared with the cloth and place a frame on the comb and cut the comb the size of the inside of the frame, taking care to save all the worker brood, and fit it in the frame—we raise the frame and comb by raising the board beneath until the frame is vertical, and then fasten the comb in the frame by winding some twine around it and set this frame with comb in the new hive, and so on until we have all the large worker combs fastened into the frames. To fasten all pieces smaller than our frames, we use the small strips, by placing two, three or four strips on the cloth, then the frame on these strips, and we arrange the small pieces of worker combs in the frame until it is full, and place other strips facing the bottom ones and tie them together at the top and bottom of the frame, and place the frame thus prepared with comb in the hive—taking care to put all brood together in the hive. When we have fitted in our frames all the worker combs (we must not put any drone combs in our frames, but if it is clean and white it may be used in our boxes for surplus honey) that we possibly can, we take the hive containing our frames with the combs just transferred, to the stand of the old hive just transferred and place a large board or a newspaper in front of it and shake the bees in front on the board or newspaper, and they will all run in. Should the stand be too high, the hive could be put on the ground until all the bees have entered, and then raised again. In two or three days we go and remove the twine and strips from the frames and we shall find the combs all fastened and the bees as busily engaged as if nothing had happened.

Now a very good plan, if we have several colonies of bees in the movable frame hive, is to take one or two frames of brood from several of them and put in the empty hive for the transferred bees, and to place the frames filled with the transferred colonies from which we have taken the combs for the transferred bees—by this method the transferred bees will have all good combs and consequently be as strong as any old colony.

When we have a honey extractor it would be best to extract the honey from all the combs filled with it, before transferring, hence saving breakage and trouble.

CHAPTER XIII.

THE HONEY EXTRACROR.

The invention of this valuable machine is due to Major Von Hrushra, a retired Austrian offieer, then a bee keeper of Legnano (Italy.) This machine is nothing else but contrifugal force applied to the extraction of honey. The machine made by Von Hruska, was too complicated and too expensive to become generally used, therefore, it has been, for some years past modified in every shape and form, especially in the United States.

In purchasing a honey extractor, we must have it as light as possible and made entirely of metal. The machine should have the can stationary, and should run with gearing, not only for ease, but also to insure an even motion. The gate for the exit of the honey should be on the *side* of the can, and not in the center of the bottom, and should permit a speedy and perfect shut-off, &c. The best and lightest one I have yet seen is the one I have been using for several years with greatest satisfaction, made by "Novice," of Ohio.

To extract honey from a comb, we must cut the capping from the capped cells with a fine thin-bladed honey knife, which is generally furnished with the extractor. This is done by sliding the knife under the caps in such a way as to have them come off in one entire sheet. At first it will be found a little difficult, but with practice it is astonishing with what ease and speed it can be done. We place the frame of honey in the extractor and turn the machine just fast enough to throw out the honey, *and no faster*, as if we have unsealed brood in the frame, we shall thus run no risk of throwing it out; but it is better not to extract honey from combs which contain unsealed brood, for I think it is prudent not to extract too closely, as there may be a sudden check in the yield of honey and the bees would run the risk of starving.

When one side of the comb is empty, we must turn it and extract from the other side. It is always better to extract from two combs at a time, so as to balance and prevent the too great friction on the bearings of the machine. If the combs are very heavy and new, it would be well to empty one side only *partially*, and turn the comb and empty the other side, and reverse it again and empty the balance. Without this we are apt to crush the comb against the wire cloth of the extractor, by the great centrifugal force resulting from such a weight at a rapid speed. As soon as the combs are empty they must be returned to the hive.

When bees are kept on a large scale and we wish to work rapidly, we must have some extra frames of comb, say about ten, as this is the average number extraeted from each hive. To bring our frames of honey to and from the extracting room, we must have a kind of carrier with four legs and two handles large enough to contain about twelve frames and sufficiently wide to allow them to hang free.

Having blown in some smoke at the entrance of the hive, we open it and take out a frame of honey, shake the bees from the frame by one or two sudden jars, and brush the remaining bees with a turkey wing, either in front of the hive or right over the frames, and place one of our extra empty combs in its place—and so on, until we have taken from the hive all the frames of honey that are fit to be extracted, placing an empty comb for every full one taken out. We bring the frames of honey to the extracting room and proceed to extract them. When they are empty we go to the next hive, that we intend to extract and perform the same operation, using the frames we have just extracted the honey from, to put in place of the filied ones taken out, and so on until we have extracted every hive. We shall save by this plan a great deal of work, and at the same time save handling a colony more than once and the bees being thus less disturbed, will resume work a great deal sooner; and this is another reason why we should have only one size frame in our apiary, so that they can fit in any hive.

If we extract when bees are busy gathering honey in the field and the yield is good, we shall seldom be troubled by robbing, and shall scarcely need any smoke, therefore I would advise not to extract when the bees are not gathering. Now to have all our honey thick and prevent it from fermenting, we must never extract unless at least half of the honey contained in the comb is sealed over. By hanging a little sack made of cheese cloth, to the gate of the extractor, the honey will be strained while the operation is going on. To remove our cappings without waste we should perform the operation over a box about twelve inches deep having a bottom made of wire cloth. Under this there should be placed a vessel to catch the drippings of the honey.

The honey extractor is also very useful in the Apiary, to extract from the brood chamber, when the bees work in the surplus honey boxes; as it very often happens that the bees will store honey so rapidly in the brood nest, that the queen will not have room to lay her eggs—hence the importance of being able to extract the honey from the brood combs, so as to allow the queen to lay to her full capacity.

To be able to extract the honey and return the empty combs to the bees, to refill, is an advantage easily comprehended, and I must say that the honey extractor is an acquisition of no small importance, as by its use we are enabled to more than double our honey crop. The honey thus extracted will command a better price, on account of its clearness and purity, for it will be free from pollen and the carcasses of bees. It has been proven by experiments that it requires from thirteen to twenty pounds of honey to make one pound of wax—we therefore see that every time we save the bees the construction of one pound of wax, we gain twenty pounds of honey. Now, suppose we sell our wax at thirty cents per pound—if this pound of wax has caused the use of twenty pounds of honey for its manufacture, we lose one dollar and seventy cents every time we take one pound of wax from the bees. This is another proof in favor of our new system of keeping bees with the movable frame hive, and using this valuable machine—the honey extractor. With the old system of keeping bees, the *gums* or box hives were robbed once or twice a year, and when a yield of fifty pounds was obtained it was considered a fine yield, but with our new system of movable frame hive and the honey extractor, etc., we extract every eight or ten days during the honey seasons, and one hundred pounds is considered only an ordinary yield to each hive. I have often obtained over two hundred pounds per colony in a good season, but my average has been from one hundred and and forty to one hundred and fifty pounds.—*Our Home Journal.*

CATALOGUES RECEIVED.

From D. S. Marvin, his Catalogue of Grapes, Trees, and his new seedling potato—"The Grange Potato."

From Ellwanger & Barry, Mount Hope Nurseries, Rochester, N. Y., their 31st Edition Descriptive Catalogue of Plants. This old establishment is more flourishing than ever, because its integrity and reliability has never been questioned. From the same house, an extended Catalogue of Roses.

From A. Hance & Son, Catalogue of Fruit Trees and Small Trees, for 1878, Nurserymen and Florists, Red Bank, N. J.

From Samuel Kinsey, Dayton, Ohio, Kinsey's Fruit, Farm and small Fruit Nurseries.

Hovey's Illustrated Guide and Seed Catalogue, for 1878, Boston, Mass.

THE DAIRY.

For Maryland Farmer.

Messrs. Editors.— In response to your request for an article on Butter making, I will begin by giving the following average analysis of the constituent parts of milk from which the Butter is obtained.

Water,	86.84
Fat or Butter,	3.80
Caseine, or Cheesy Matter,	3.95
Milk Sugar,	4.60
Salts,	.81
	100.00

You will notice that Butter is a very small part of the milk, and in butter making the object of every dairyman, should be to separate the Fat or Butter in its most valuable condition, and with greatest facility, and to do this it is necessary to have some idea of the particles which form the butter—These particles or atoms of oil when undisturbed in milk, are minute sacks of oil, in which the oil becomes granulated when the milk is placed in a temperature of 60 degrees or lower—and remain granulated until heated to a degree which melts them or until subjected to friction which crushes them—and it will be well to state here that choice Butter can not be made from oil globules whose granulation has been destroyed by heat or friction, and at the sametime it is equally as necessary to free the grains of oil from the sacking–caseine &c., in order to produce the pure butter in its most valuable condition, and I will try to suggest some ideas for guiding dairymen in so doing.

Cows should not be driven fast, heated or excited as the milk becomes heated in the bag, and the globules of oil break before or whilst milking, and after being broken granulation never takes place. though, the oil can be formed into a mass. The milk should not be handled roughly, and should be moved as little as possible—should be strained through a fine seive and not forced through cloths. The milk should be placed in crocks, or earthenware vessels and kept in temperature of 60 degrees or as near as possible, permit it to remain 12 to 18 hours, and then carefully remove the cream, and place it in same temperature until ready for churning. Pure cream kept in temperature of 60 degrees will keep comparatively sweet from 5 to 7 days if the atmosphere of the dairy room is pure. In making the best Butter it is not well to leave the cream too long on the milk before taking it off, as the last risings of the cream is often injured by particles of caseine or cheesy matter, which becomes attached to the oil sacks and are carried up to the top by the oil. The cream should be

churned at a temperature of 60 or 65 degrees; cream from fresh cows will churn easily at 60 degrees, and as they advance will require increase of heat to 64 or 66. I will also state that churns with small dashers require higher temperature than one with large dashers, for the larger dasher produces more heat from its increased friction. After the grains of butter have been freed from their sacking by the friction of the dasher they will make their way up through the casiene to the top of the churn, and should be taken off carefully and placed in cool water, the butter should not be churned after it has risen well to the top, as the increase in bulk then, is not from butter—but from an accumulation of particles of casiene to which the crushed particles of oil attach themselvas, and bring to the top to the great injury of the Butter. The butter should be washed gently with a paddle by pressing, and not by mashing or cutting through it, and after being washed free from buttermilk, add fine salt sufficient to season as desired.

If the butter is to be shipped to market it is well to form it into blocks twice as long as wide, and half as thick as wide, place around it a fine cotton cloth, free from starch and pack the blocks as closely as possible, so as to keep from exposure to the air which injures the Butter very much by imparting oxigen to it.

Having tried to suggest how good Butter is made, I will state how poor butter can be made, with certainty of accomplishing it—Heat your cows by running, beating or exciting them, keep your milk in temperature 70 degrees or upwards, pour hot water in your churn, set your vessels of milk around the fire, cook one side gently and then turn the other side and cook it also, wash your butter in warm water, or with the hands instead of a paddle, churn your butter back into the milk after it has risen to to the top of the churn, until the grains are all broken and mashed into the particles of caseine, all of these ways produce a mass of cheesy grease and not butter, which should have its particles granulated. Keep all the milk vessels sour and dirty, and a few vegetables decomposing in the milk room, and the butter will be sure to have a bad flavor and be poor.

Respectfully etc..

W. S. Temple, 47 S. Howard St.

Pumpkin Seeds.–It seems to be a popular belief that pumpkin seeds fed to cows act injuriously on milk production. We know of a case where whole pumpkins have been largely fed, not only with no injury, but with an absolute increase in the milk supply; and this, too, by a retail milkman, well known for his intelligence and careful observation.—*Exchange.*

OUR LETTER BOX.

Cotton Seed Oil Cake and Cotton Oil.

Messrs Editors.—In regard to the cotton seed Oil Cake, it can be had of the Dixie Oil Co., Nashville, Tenn., of the Union Oil works of New Orleans. The price of oil cake is $14 to $18 per ton, and cotton seed meal is $17,50 per ton–It is fed in connexion with Corn Meal or Oats it being to rich to be fed alone, as to the quantity, that depends entirely on the inclination of the party, I would feed it say one fourth of the Oil Cake, to three fourth of Corn meal.

It is exceedingly sweet and much relished by stock; it has not the unpleasant taste of Linseed Cake, the prices of it is quoted daily in the New Orleans papers; Cotton seed meal $17.50 per ton; cotton oil cake, $14.00 to $18.00. An Oil mill will soon be established at this place in connection with a Cotton Factory just started.

I have just had prepared some samples of the Oil, to send to the Paris Exposition, there are four samples of it, as it comes from the press, either in different states of refining, one is perfectly splendid, such as used as salad oil.

The salad oil is put up in regular salad oil shape, in bottles, and is a regular article of commerce, it is regularly reported in the Grocers price lists in New York, as domestic Salad Oil, is very fine.

Yours truly

W. H. Oliver.

The above letter was written in reply to queries propounded to us by a subscriber in Washington City, Mr. B. M. S. which, we not being able to answer, M. O. has kindly furnished the information desired. Eds. Md. Farmer.

For the "Maryland Farmer:"

Messrs Editors:–I notice in your issue of March an article on Packing eggs for hatching, and for fear that some of your readers may use saw dust for packing will state that an Egg is as much alive as an animal, and breaths in its way equally as certainly, and when it breathes, gases from resinous or volatile oils contained in saw dust, life is very apt to depart from the egg, every egg has an air sack in it, and is colder at one end than the other, and has a constant if almost imperceptible current of air passing through its pores, and if this current contains poisonous gases the egg is killed, after which the ends of the Egg are of the same temperature.

I will suggest a way of packing which may be serviceable to some; wrap each egg in brown paper, this keeps the egg from slipping if not well packed—use for packing dry bran, or any light dry

and harmless substance, put a plenty of packing between the eggs and around the sides of the box put three inches of packing on top of the eggs and force it down as tightly as you can, and you may rest assured that no eggs will break, if the box is shipped a thousand miles or more.

W. S. TEMPLE.

—Mr. J. C. A, St. Micheals Md., inclosing the money for a club, which he kindly got up for the MARYLAND FARMER, says 14th March "Wheat looking decidedly well in the county." So reports each member of our Agricultural Society.

I found the wheat in my late travels looking but poorly, south of Md." We wish we had more friends on Eastern shore, as active and zealous as our friend A.

TO KILL TICKS ON SHEEP.—Mr. M. M. H. of Charles co. Md., wishes us to tell him what will kill ticks on sheep. And we reply, that there are many recipes for this purpose. But the safest and best we know of is to dip the sheep in a decoction of tobacco water—Make a lye of tobacco stems or trash tobacco, dip the sheep for a few minutes in the solution, taking care to keep the nose, ears and eyes of the sheep out of the tobacco water—Stand the sheep up and let it drain well, and then turn it out on clean grass if the weather is good, or if bad, put it in a warm house until dry—There is a preparation called tobacco soap which has been found to be valuable in destroying all insects. The directions for its use are given by the manufacturer we recommend it highly.

J. G. I., Louisville, Ga. says, "I send you a list of five new subscribers and the money to pay for subscription, I like the MD. FARMER very much, think it one of the very best of its kind and the price is reasonable too."

C. A. R. of Balto. Co. wants to learn how to to tell a good milker, by what signs? We refer him to Guenon's Escutcheon Book and to the letter by Dr. A. P. Sharp in the December number last year of the MD. FAR.. and also to page 25 of the FARMER for January 1878.

For the Maryland Farmer.

Milk, Cream and Butter.

Messrs. Editors.—In reply to your inquiry as to how much cream is generally taken from milk, I find that the general result is one-eight. or from 24 pints or pounds of milk; 3 pints or pounds of cream, which should yield one pound of butter; and so I will report a fair average proportion, as follows—Milk 24 parts, Cream 3, Butter 1; or Butter 1-24, Cream 1-8

Respectfully, &c., W. S. TEMPLE
47 S. Howard St

For the Maryland Farmer.

Home Influence.

"Twined with every earthly tie,
Memories sweet that cannot die,
Breathing still where'ere we roam,
Father, Mother, Friends and Home."

The value of Home Influence is incalculable. The tenderness of a loving mother and the influence of a kind father, are all "Life's Changes," seeming to chide us when wayward, and approve of every worthy action. They dwell in the sanctuary of our souls long after their fond hearts have ceased to beat.

The influence of home has much to do with our subsequent career. We gather in our childhood those first principles, which form the basis of our good or ill fortune. We should cultivate the beautiful in our daily life, we should seek for perfection in our manners, as well as our morals, and no where should we shed such a radiance, as when surrounded by our loved one's at home.

In the daily intercourse of home life, little acts of watchful kindness daily and hourly recur, opportunities for doing good, if sought for, are forever starting up, and by kind and gentle words, we may soothe many an aching heart. "Every thing is irrevocable. The word spoken, the deed done, is registered in the book of Fate, from the pages of which no solvent can blot it out. Every word or action, however small, has its influence on those around us, and the effect is often quite out of proportion to the cause. Like the pebble dropped into the Atlantic, will produce a ripple, that is felt more or less to all its distant shores. The eye may not be keen enough to detect it ten yards from the spot where the stone displaced the water, but though unseen, it still exists. It may be crossed by counteracting causes, still it acts, and has its effects permanent, persistent—never ending."

So it is with our actions, no one is wise enough to foresee the tomorrow, or how the events of to day may influence it. No one stands alone. "Life is a very complex tissue, and every one influences those around them, directly or indirectly. The conduct of some one, effects the course of your life, and you will also effect the lives of others, and so on *ad infinitum*. Ah! these steeps of human life are hard enough to climb, when each shows his light and lends a helping hand to anothers burden." God help us all to help one another, and may the Home Influence, we exert be like "a moral battery, sending out electrical currents of good influences, to traverse and throb along the myriad social wires, which in the manifold relations of life, we are constantly brought in contact with."

"Help us O Lord! with patient love to bear
Each other's faults, to suffer with true meekness;
Help us each other's joys and griefs to share:
But let us turn to Thee, alone, in weakness."

WICOMICO.

LADIES DEPARTMENT.

A Chat with the Ladies for April.

BY PATUXENT PLANTER.

APRIL.

What are the dearest treasures of the spring?
The rosy haze that veils the forests bare;
The vague, sweet fragrance in the balmy air;
The twitter of the swallows on the wing;
The tender beauty of the wavering light;
The rains, as swift as tears in babies' eyes,
The sudden sunshine in the changeful skies;
The softened brightness of the star-lit night;
The freshening emerald of the bladed grass;
The sparkle of the myriad-dimpled sea;
The rush of moun ain brooks,once more set free;
The sense of early bloom so soon to pass—
These are most fair, but more than these to me
The wakening memories of the vanished years,
Tender regrets, grown dim 'neath many tears,
And sorrows softened like a rainy sea;
Swift recollections of forgotten bliss,
Thrilling the heart with dreams of joy again,
An ecstacy of pleasure shot with pain,
As when the sunbeams and the rain-drops kiss;
Reluctant hopes, that come like snow-drops white,
The faint frail harbingers of happier days,
Filling the heart with tremulous amaze
That hardly dares to call itself delight—
These are the dearest treasures of the spring;
These are the flowers the heart perceives more fair
Than all her blossoms of sunny air,
Than all her birds of bright and restless wing.

This young sister of spring has come and expects a welcome from us, and she brings her youngest babes, snowdrop, crocus, violet, hearts-ease, beside many brightly colored flowers that shrubs and wild and cultivated flowers send forth for admiration,as little adventurers from the great storehouse of nature's laboratory, which has all winter been providing for the adornment of the earth and bestowing special pains on the re-vivification of early plants, shrubs and flowers, both domestic and wild.

Follow the dictates of nature and the inducements that education offers, and go to the woods, get blood-root and other wild plants, take them up with your own hands and bring them home. Many of our wild flowers are more beautiful and wonderful in conformation than those which we buy, simply because they come from afar—and often give rise to the expression "far fetched and dear bought." The wood-violets and columbines and patuxlena are all lovely.

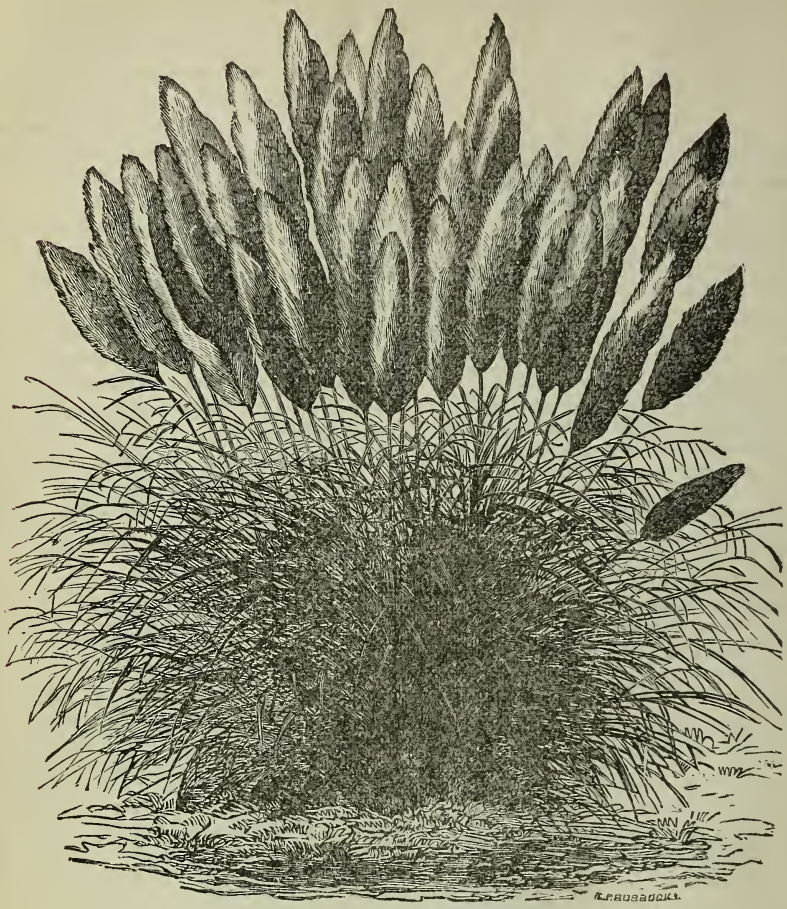
Begin your garden work at once. Set the beds in order, trim the shrubs and roses—divide the bulbous roots and other plants that crowd each other; sow the seeds of the hardier annuals.

Do not put off from day to day the arrangement of your flower beds, and the walks and edgings. Select a list of all the flowers you want, and those you have not, obtain from some noted florist or seedsman. Study the character of the plants you intend to cultivate. Consult the catalogues of Vick or other great floral seedsmen, and learn how to plant each flower, when to plant, sort of soil best suited, height of growth, color etc., so that you can artistically arrange a bed of flowers, that colors may be properly blended without a shock to good taste, the height rising gradually from the lowest to the tallest growing, By this close attention to the directions of florists, you will avoid the mistake, often made, of attempting to grow in the shade, plants that require the hot blaze of the sun and vice versa. Some flowers, indeed most,require a light rich soil, some delight in heavy clay not over rich, and each class have their peculiar tastes and habits as found in the human race. These requirements and peculiar inclinations of plants, can be easily discovered by reading the full descriptive catalogues of florists.

Now is the time to have your croquet ground well prepared by filling up hollows, cutting down little risings in the ground, and heavy rolling or beating with a paddle, until it is as level and smooth as a bowling green. Keep the turf cut close by frequent use of the lawn-mower, and you, will have a delight for old and young during the year If you wish to enjoy to the full, the cultivation of flowers, procure a set of ladies garden implements, consisting of a hoe, rake, spade and fork, made of fine material well polished and small, so as to suit the delicate hands of ladies and children, yet very durable and suitable for working flower-beds. To these should be added, that invaluable little Excelsior Weeder, patterned after the human hand and does the work of weeding and stirring the earth about tender plants and flowers, as well as woman's slender fingers. The whole can be had for the small price of $1.50. The price of the last referred to is only 25 cents, and meets with a great demand. The lady or child ever possessed of one would never be without one, for it saves time and their tender fingers. It is a wonderful little instrument.

No lawn or garden should be without the beautiful and gigantic grass that I give on next page, with its description.

The blood-root is an early white flower, and grows well as a cultivated plant. The Columbine or Aquilegia Canadensis is found in the woods and fence corners on light gravelly soils. The Patuxlena has beautiful dark blue flower, something like a single hyacynth, with a stem filled with umbels and surrounded with large geeen leaves, resembling those of the lily of the valley. The plant grows a foot or fifteen inches high. Strange it will not thrive any where more than a mile or so distant from its native home.—certain portions of the pocosin along Patuxent river in Maryland.



PAMPAS GRASS (Gynerium Argenteum)

A stately species of grass from South America, growing six feet in height, with plumes of yellowish white, one to two feet in length; it looks best as a single specimen. As it is not quite hardy North, it requires protection of eight or ten inches of leaves around the roots, or it can be removed to the cellar, and replanted in spring.

This grass is a very beautiful object in the garden or on the lawn. The plumes are fine for parlor or sitting-room decoration. They form a beautiful mantle ornament, retaining for years their beauty. Peter Henderson, the famous florist of New York, says, "they are at all seasons, peculiarly fitted for church decoration. To develop the Plumes properly, shake them for a minute or two in front of a fire."

They are propagated by seed, but as a single plant, can be had at a trifling cost, it is best to get a plant and be sure to have a fine bloom the first season. Every lady should have one or more of these gigantic grass plants to adorn her flower garden and furnish a handsome and uncommonly striking ornament for the centre table or mantle piece in dreary winter. The Plumes are superb. It flourishes in the Middle States as a perennial with slight protection in winter, in any rich soil, not too wet, yet it must have some water during a drought.